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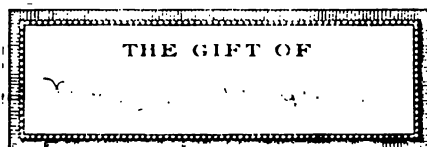
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the 1990s, the number of people in the UK who are employed in the public sector has increased by 1.5 million, from 2.5 million in 1980 to 4 million in 1995. The public sector has become a major employer in the UK, and its growth has been a major factor in the overall growth of the economy.

The public sector has also become a major employer of women. In 1980, women made up 40% of the public sector workforce, and by 1995, this figure had risen to 50%. This increase has been driven by a number of factors, including the growth of the public sector, the increasing participation of women in the workforce, and the increasing demand for public services.

The public sector has also become a major employer of young people. In 1980, young people made up 10% of the public sector workforce, and by 1995, this figure had risen to 20%. This increase has been driven by a number of factors, including the growth of the public sector, the increasing participation of young people in the workforce, and the increasing demand for public services.

The public sector has also become a major employer of people with disabilities. In 1980, people with disabilities made up 5% of the public sector workforce, and by 1995, this figure had risen to 10%. This increase has been driven by a number of factors, including the growth of the public sector, the increasing participation of people with disabilities in the workforce, and the increasing demand for public services.

The public sector has also become a major employer of people from ethnic minorities. In 1980, people from ethnic minorities made up 5% of the public sector workforce, and by 1995, this figure had risen to 10%. This increase has been driven by a number of factors, including the growth of the public sector, the increasing participation of people from ethnic minorities in the workforce, and the increasing demand for public services.

The public sector has also become a major employer of people from the lower social classes. In 1980, people from the lower social classes made up 5% of the public sector workforce, and by 1995, this figure had risen to 10%. This increase has been driven by a number of factors, including the growth of the public sector, the increasing participation of people from the lower social classes in the workforce, and the increasing demand for public services.

The public sector has also become a major employer of people from the lower income groups. In 1980, people from the lower income groups made up 5% of the public sector workforce, and by 1995, this figure had risen to 10%. This increase has been driven by a number of factors, including the growth of the public sector, the increasing participation of people from the lower income groups in the workforce, and the increasing demand for public services.

The public sector has also become a major employer of people from the lower education levels. In 1980, people from the lower education levels made up 5% of the public sector workforce, and by 1995, this figure had risen to 10%. This increase has been driven by a number of factors, including the growth of the public sector, the increasing participation of people from the lower education levels in the workforce, and the increasing demand for public services.

The public sector has also become a major employer of people from the lower health status. In 1980, people from the lower health status made up 5% of the public sector workforce, and by 1995, this figure had risen to 10%. This increase has been driven by a number of factors, including the growth of the public sector, the increasing participation of people from the lower health status in the workforce, and the increasing demand for public services.

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A BRIEF HISTORY OF CULTURE.

INTRODUCTION.

SECTION 1. *Grandeur of the Subject.*—This book, though small, is ambitious. It is the result of long studies, undertaken with the idea that the development of our race is the grandest and most instructive of all historical subjects, and deserves the best treatment which any author can give to it. I have tried to present a comprehensive statement of the growth of humanity, an epitome of the experience of our race, explaining all the main steps by which mankind has advanced from primeval savagism to the enlightenment of our own day, with express or implied judgments on the mechanism, science, and political, social, military, ecclesiastical, moral, and philosophical systems of the different ages, races, and nations. I have done my best to compress within a few hours' reading the chief lessons of historical philosophy, to show that man is a progressive animal; that his advancement has been constant; that, though his speed has sometimes been checked for a brief period relatively, his career has never turned backward; that the useful arts have made the chief epochs in history, and are the main bases of civilization; and that progress increases in geometrical ratio with the course of time, and tends, since the be-

ginning of the Iron Age, to greater liberty and the emancipation of human nature from the restrictions imposed upon it by barbarism.

Having sought to avoid display of erudition, complexity of detail, and pretension of style, and to present my information in a manner adapted to simple understandings, I hope that my work will be found serviceable in schools, and also valuable to general readers, while not without interest to philosophic students. The magnitude of the subject demands a book ten or twenty times as large as this, and my studies were undertaken and carried through in the intention of completing such a work ; but, when I made an examination of the material, I was impressed with the idea that the first and most urgent want is a manual prepared for the multitude, to give them a summary of the ideas that fill the mind of the student who has gone over the whole range of human progress, to popularize the history of culture, and to stimulate a taste for a higher class of historical works, not filled up with the pedigrees, whims, personal peculiarities, and adventures, of kings, commanders, and courtiers, and the petty events of cabinet intrigues, military campaigns, public festivals, and popular commotions. Besides, I believe that a good history of culture, adapted to the comprehension of the million (I trust I have not failed in my efforts to make mine such a book), may be of vast service in the cause of progress toward political, social, educational, and industrial equality—a cause which has taken wonderful hold on the intelligence and conscience of our time.

SEC. 2. *Its Newness*.—The subject is new, as well as important. It has never been handled before in English. Buckle's "History of Civilization in Eng-

land" is an introductory philosophical disquisition, and was never completed. Guizot's "History of Civilization in France" is only a history of a few political changes which occurred in feudal times. These are the only books, accessible to the general reader, purporting to be histories of civilization, and neither deserves its title. One is not historical in character; the other is restricted to a small part of its subject. The only comprehensive histories of culture are those of Wachsmuth (1850) and Kolb (1870), in German. Neither has been translated into English, and, while the latter has many merits, yet it has also many deficiencies, and any competent translator, undertaking to supply them, would find himself compelled to prepare a new work. Gustav Klemm has published a German work, of about thirty-five hundred pages, called "A History of Universal Culture;" but it is a series of essays describing the customs, laws, and religions, of different tribes and nations, with no mention of historical connection between them. The most notable French book in this branch, after Guizot's, is Voltaire's "Essai sur les Mœurs," which was the first attempt at a history of culture, and is written with much ability and learning, but is out of date.

Persons familiar with the literature of the last twenty-five years will not need to be reminded that many of our most celebrated authors have complained that our history has been studied from a low standpoint, and should be rewritten. Buckle tells us that "the important facts have been neglected, and the unimportant ones preserved." Comte says that our historical literature is "an incoherent compilation;" and, in the opinion of John Stuart Mill, it is "antiquarian," not "philosophic." I might quote expressions to the

same purport from others, but these are enough to prove, if any proof were necessary, that histories of culture are wanting. Whether I have succeeded, even tolerably, in supplying the want, is another question, which will, no doubt, be decided fairly by the public reception of my book.

I have a right to complain of difficulty in finding much of the information here given. Many of the facts which to me appeared worthy of mention, in a brief record of the progress of culture, are unnoticed in the standard histories, and had to be searched for among all kinds of rubbish in out-of-the-way places. No biographical dictionary gives the name of the inventor of the hot blast, and historians pass the introduction of the iron mould-board without notice; and yet those two inventions have more influence on humanity than the exploits of a dozen famous generals, whose petty adventures are told in hundreds of volumes.

SEC. 3. *Its Inexhaustibility*.—If, however, the history of civilization had been written by many authors, it would not be exhausted; and there would still be an opportunity to say much worthy of perusal and study. There is room for great and numerous differences of opinion in relation to the relative importance of different branches of human thought and industry. The Catholic, the Protestant, and the freethinker, the aristocrat and the democrat, the soldier and the man of peace, the political economist, the metaphysician, and the poet, the scientist and the artist, the mechanic, the merchant, and the farmer, may each seek to prove that the ideas and labors of his class have been the chief, or among the chief, blessings of humanity in the past, and will be in the future. The issues which continue to

live will be disputed with new arguments and comprehensive evidence in the histories of culture, and readers who wish to decide the contests must make themselves familiar with both sides. Each will claim that his book is the true and impartial one, and I make that claim for mine.

SEC. 4. *Draper*.—Our best culture-historical work in English is J. W. Draper's "Intellectual Development of Europe," though he does not claim an historical character for it. He says it was written as a completion of his work on human physiology, and to prove that the progress of Europe in civilization has not been fortuitous, but has been determined by primordial law. I, however, regard his book not only as historical, but as our most valuable historical work. Scholars could better afford to be ignorant of Grote, Gibbon, or Macaulay, than of Draper. He undertakes to trace the progress of culture from the beginning of civilization in Greece to our day, and, while he omits much which should have been inserted, inserts much which should have been omitted, and misunderstands the values of many of the influences which he discusses, he is nevertheless full of the culture-historical spirit, and he presents many important suggestions not to be found elsewhere, and clothes them in a style of rare force and elegance. Still, as his eras are all ecclesiastical, while mine are industrial, and he devotes most of his space to topics at which I glance very briefly, and his book is not, and mine is, designed for general readers, I think mine may venture into the light.

SEC. 5. *Plan of the Book*.—I divide culture into five ages, those of Stone, Bronze, Iron, Printing, and Steam.

In the Stone Age, men were savages, and had no accumulation of property, no division of labor, no

strong national organization, no written laws, no dense population, and no edge-tools of better material than stone. In the chapter on savagism, the general social, political, and religious features of that condition are described, and then special descriptions are given of certain typical nationalities, such as the Hawaiians, New-Zealanders, North-American Indians, Kaffres, and Esquimaux.

Barbarism, the condition in which bronze weapons for war and tools for agriculture came into common use, occupies the second chapter, in which we see a considerable division of labor and accumulation of property, improved tillage, dense population, strong nationalities, large cities, durable dwellings, permanent and extensive conquests, written laws, and complex political, social, and ecclesiastical systems. The general features of barbarism, and afterward of the leading barbaric nations, including ancient Egypt, Assyria, Persia, and Hindostan, are described.

The Iron Age began about 550 B. C., and brought with it the common use of the alphabet, a refined taste in literature and art, and historical records written like those of our day, and here the connected story of culture-history begins. We know much of savagism and barbarism, but we are unable to trace the progress of man through them with information so authentic and clear as we have of later times. The Iron Age is treated in two chapters: one, on Pelasgian civilization, follows the advance of culture through ancient Greece and Rome; the other, on the Middle Era, tells how Europe was reconstructed by the Teutonic conquest, how Christianity, Mohammedanism, the feudal system, and the Italian republics, rose and established their authority.

The fifth chapter, on the Press Age, describes the period from 1450 to 1770, in which printing was the typical feature. The mariner's compass, gunpowder, chimneys, window-glass, and many other inventions previously made, now came into common use ; and great changes occurred in the arts of war and navigation, intercourse with foreign nations, the extent of civilization, and the transfer of the main centres of wealth and intelligence from the southern to the northern slopes of Europe. We now begin to trace the fortunes of many nations still existing. We see how Venice, Spain, Portugal, Holland, Sweden, and France, at various times, had the leadership in war or commerce, and how each lost her place, in most cases, by defects of government.

The sixth chapter relates the history of the Steam Age, from 1770 to 1873, with its wonderful changes made by steam-machinery, the metallurgy of iron, cloth-machinery, the electric telegraph, the discovery and vast development of chemistry and geology, the great improvement in means of locomotion and the implements of warfare, the extension of civilization over large areas previously savage or barbarous, the rapid advances toward the combination of a large majority of mankind into one harmonious community, bound together by common interests and sympathies, and the accumulation of property and knowledge with a speed tenfold greater than in the Press, and a hundredfold greater than in the Bronze Age.

The seventh and last chapter is occupied with a review, in which the different ages are compared with one another, and culture, as a whole, is considered from various points of view. The influences that obstruct and that favor progress ; the geographical course of cult-

ure, which since the earliest days of barbarism has moved gradually from the borders of the torrid zone in Hindostan and Egypt northward through Babylon, Nineveh, Athens, Rome, Venice, and Paris, to London and Berlin; the progress of morality over the ruins of caste, polygamy, despotic government, slavery, and other class privileges; the predominance of Europe over the other continents; of the Teutonic family over the other Euraryans, and of the English nations over the other Teutons, and the value of the contributions of different nationalities to culture, are among the topics considered.

Although I have used Savagism, Barbarism, Pelasgian Civilization, and the Middle Era, as headings for the first four chapters, yet my main periods are styled the Stone, Bronze, Iron, Press, and Steam Ages, the division being based throughout on industrial art, the main force of culture. It was the use of bronze that first enabled men to organize compact, barbaric communities; it was not until they obtained iron that they reached Pelasgian civilization; the press, the magnetic needle, and gunpowder, were the main influences in raising men to a higher condition in the Printing Age; and steam and its wonderful mechanical and scientific companions deserve the chief credit for the great intellectual as well as industrial and commercial progress of the present time. Attributing to industry and science the first places in culture, I have given much space to information about the inventions and discoveries; while kings, conquerors, and diplomatists, are generally treated as unworthy of admiration, and, in a work so brief as this, even of notice.

The Steam Age, from 1770 to 1873; the Press Age, from 1450 to 1770; the Iron Age, from 550 B. C. to

1450 A. D. ; the period covering thousands of years preceding the Iron Age, and the general review, each occupies about one-fifth of the book.

SEC. 6. *Explanations.*—The only age or cultural condition which has ever been coextensive with mankind is that of stone. After the Bronze Age began, many tribes still remained in the Stone Age ; after iron came into common use in Greece, other nations had nothing better than bronze or stone, and even now communities are to be found in each of the lower conditions save that of bronze, which has entirely disappeared. It would perhaps have been better to have said the “stages” of Stone, Bronze, Iron, Press, and Steam ; but “ages” has been authorized by usage, and I accept it.

I have given no references, but in the Appendix I present a list of works which may be of interest to persons desirous of pursuing the studies here suggested.

I have doubtless made some incorrect statements, and committed some errors of judgment ; but I trust that a discriminating public will see that the work has been done carefully and honestly, and will generously overlook my mistakes, if they be relatively small and few.

CHAPTER I.

SAVAGISM.

SECTION 7. *Man progressive.*—Man, as distinguished from other zoological species, is a progressive animal. (He has a capacity for continuous intellectual improvement as a race.) (The prolongation of his existence implies his advance in culture. His large brain, the articulating muscles of his throat and mouth, his upright form, his grasping hand, his system of nutrition, fitting him to use both vegetable and animal food, his large size as compared with most other animals, and the general superiority of his physical organization, when considered together, indicate that he must accumulate experience, invent language and tools, and establish useful arts, government, society, and civilization. The beginnings in every branch were rude, but the improvement, though very slow at first, has been uninterrupted. We find the remains and indications of our descent from savages in our speech, religion, morality, social customs, and political laws.

SEC. 8. *Civilization natural.*—Civilization is the natural product of human nature. History, historical criticism, archæology, and physical science, tell us that, within their domains, all changes proceed under invariable laws. We have seen men advancing, from a time long before historical records began, in many different branches, with no impulse or aid save that given by

the human intellect, and so they must have advanced from the earliest times. The greatest modern thinkers agree with Pascal, that "the entire succession of men, through the whole course of ages, must be regarded as one man always living and incessantly learning." The individual begins his existence in the lowest possible stage of ignorance, helplessness, and speechlessness; and the race began in the same way—every thing was to be learned, every thing to be accomplished.

When the Spaniards landed in Mexico, they were received as gods by the Aztecs, who supposed that men like themselves could never have made ships and cannon. The invaders laughed at the superstition, because they had general ideas of the numerous arts and tire-some labor required in producing such things, and because they understood something of the slowness and difficulty of the progressive steps by which men had first learned to make them. And yet, if the ignorant followers of Cortes should now return to earth, and, knowing nothing of the events of the last three centuries and a half, should see men traveling fifty miles an hour by steam, talking across continents and oceans through wires; seeing men distinctly at a distance of ten or fifteen miles by telescopes, magnifying fleas to the size of horses by microscopes, taking portraits (more accurate than those painted in months of labor by eminent masters) by merely exposing prepared paper to the light for a few moments, using rifles which can be fired a dozen times in a minute, and aimed with fatal accuracy at a distance of eight hundred yards, they would assuredly believe that unaided human ingenuity could never have acquired such dominion over the forces of Nature, and that help must have been obtained from demoniac or divine power. We should laugh at their

superstitions. We know that the alphabet, the printing-press, the steam-engine, the electric telegraph, the photograph, the telescope, the spectroscope, our political freedom, our poetry, our oratory, our painting, our sculpture, our architecture, and many other glorious possessions, are exclusively human in their origin and natural in the mode of their development ; and we must attribute our culture, as a whole, to the same forces and influences. The Arabs think Englishmen are magicians because they have watches, telescopes, revolvers, and other inventions, which we know to be the products of man's ingenuity ; while many learned men have imagined that there must be something miraculous in some of the earliest steps of culture which to savages have no significance. Each sees something supernatural in that which is the farthest from him.

SEC. 9. *Mosaic Account.*—The statement that civilization is the necessary product of human nature may be regarded as inconsistent with the Mosaic account of creation, which was, until of late years, generally accepted as historically true ; but it is now regarded by all the ablest scientists and by many, if not most, leading Biblical critics¹ as a record of ancient traditions, which do not agree with each other or with trustworthy information derived from other sources, and are therefore not to be accepted. We must turn to geology, archæology, zoology, and the study of the savages

¹ For the opinions of Biblical critics who think the beginning of Genesis a compilation of conflicting traditions, see "The Introduction to the Study of the Holy Scriptures," by T. H. Horne, twelfth edition, vol. ii., p. 287 ; also, "The Holy Bible according to the Authorized Version, with an Explanatory and Critical Commentary, and a Revision of the Translation," by bishops and other clergy of the Anglican Church, vol. i., pp. 22-28 ; and, also, "Unnoticed Things of Scripture," by Rev. W. I. Kip (Episcopal Bishop of California), p. 13.

of our own time, to obtain correct ideas of the condition of men when they first appeared on the earth.

SEC. 10. *Man's Antiquity*.—High geological authority tells us that man has lived on the earth at least one hundred thousand years. Since he made his first appearance, the situations of the land and sea, the flora, fauna, and climate of the world, have undergone many great changes. The ancient strata of gravel furnish proof that, when the mammoth, the rhinoceros, the hippopotamus, the cave-bear, the hyena, and the tiger lived in Europe, he was there with them. A rude picture of a hairy mammoth on a piece of fossil ivory, found at Madelaine, France, in 1864, was evidently drawn by a man contemporary with the animal. A thigh of a young rhinoceros, taken from a cave near Aurillac, in France, must have been cracked when fresh by a man to get the marrow. Men inhabited the valley of the Rhone in the latter part of the glacial epoch; they made their homes in Denmark in districts covered with fir-trees, which disappeared and were succeeded by oaks, which in turn disappeared and are now replaced by beech-trees. In California, men existed in the Post-pliocene Age, before the volcanoes of the Sierra Nevada had exhausted their activity. At New Orleans a human skeleton was found, covered by the remains of four successive cypress-forests, each of which had died out, the earliest more than fifty thousand years ago. Borings in the lower part of the valley of the Nile have shown that more than sixty feet in vertical depth of the bottom-land have been deposited by the river, and pieces of pottery brought up from that depth must have been made more than twelve thousand years ago. Some of the pile-dwellings in the lakes of Switzerland must have been built at least eight thousand years ago.

SEC. 11. *His Tropical Origin.*—Man had his origin presumptively in the tropics. Ethnologists and comparative anatomists tell us that the black men are the lowest in zoological order, the red men next, and the white men highest. All geologists accept the general principles that there has been a gradual progress in the forms of life—the lower preceding the higher in the order of time; that the invertebrate preceded the vertebrate; that the fish preceded the mammal; that the lower mammals preceded the apes, and that the apes preceded the man. We infer that the negroes and negritos preceded the red and white men. The negroes are indigenous in Western Africa, in and near the torrid zone; and the negritos in Borneo and the adjacent islands. We do not know whether all the black men came from the same original stock, nor whether the first red men were the children of black, or the first white men the offspring of red parents. Upon these points scientists are divided. The yellow men probably had their origin in sub-tropical, and the white men in a temperate clime.

SEC. 12. *Primeval Savagism.*—Savagism, the lowest stage of culture—the condition of mankind for many centuries—prevailed universally until some date not now ascertainable, but probably not later than 8000 B. C., and still prevails over a considerable portion of the earth, including parts of Africa, Australia, America, Polynesia, and the regions occupied by the Esquimaux. It is the condition of men who have not advanced far enough to build cities or keep public records, and who, as a class, depend for their subsistence on uncultivated plants and wild animals. So long as all men were savages, the distinguishing feature of their condition, as compared with higher forms of culture, was that their

edge-tools were mainly of stone, and therefore it is said that they were in the Stone Age. Centuries elapsed before the art of making edge-tools of stone was learned; and we know that, for a long period, their stone axes, arrow-heads, and knives, were very rudely, and afterward more skillfully made. Therefore, we may divide the Stone Age into three periods: the raw stone, or prelithic; the rough stone, or paleolithic; and the polished stone, or neolithic.

The condition of the primeval savages is, to a considerable extent, a matter of presumption. We have no well-authenticated account of man in that state. The useful arts have advanced in all the continents and larger islands, and no tribe is beyond their influence. And yet many tribes are so low that no traveler describes them without making remarks about their resemblance to the brutes. The aboriginal Australians have a very small calf to the leg; and the calf is mentioned by anatomists as a peculiar feature of humanity. The projection of the lower part of the face in the negro is a departure from the type of the higher races, and an approximation to the apes. The strong odor, the crooked limbs, the peculiar wool, the speech, which sounds more like the cries or grunts of beasts than the language of Europeans, the lack of intelligence, the ignorance or disregard of the decencies and duties of life as understood by civilized men, the personal uncleanness, the unwillingness to adopt habits of regular industry, and the inability to master any of the higher arts, all suggest a serious zoological inferiority. The most debased tribes are also, as a general rule, the weakest in a military point of view; and, having been driven by stronger tribes back into districts remote from the main routes of travel, and undesirable as

places of residence, travelers find it difficult to reach them, to communicate with them, and to learn their mode of life and thought. Therefore our information is not satisfactory in regard to any one of a dozen different tribes of very debased savages now in existence, and from which, if we knew their precise mental condition and mode of life, we might draw many instructive suggestions in reference to the earliest savages of our race.

SEC. 13. *The Lowest Tribes.*—It is perhaps on account of scantiness of information that ethnologists have not agreed in recognizing any one savage tribe, visited by modern civilized travelers, as the lowest in the scale of culture. Pickering tells us that the natives of Erromango have orang features; and he quotes an opinion of Captain Vanderford, that they looked "rather like monkeys than men." The savages of another island of the New Hebrides group made a similar impression on Forster. The wild people of Ceram, of the Malay Peninsula; of Borneo, and of Mindanao; the Obongos of Western Africa, near the equator; the natives of Lower California and of the Andaman Islands; the Bushmen of South Africa, and the aboriginal Australians, have, or had when first observed by the whites, no clothing, no permanent homes, no hereditary or elective chiefs, no government, no cultivation, no domestic animals valuable for food, draught, or wool, and, so far as known, no conceptions of religion. Their chief food consists of vermin and wild fruits. The average height of the Obongos is little over four feet, and the Bushmen about four and a half. The speech of the wild men of the Malay Peninsula sounds like the chattering of birds. The wild men of Borneo are considered and treated like wild beasts by the Dyaks.

They are untamable, and the only method of preventing their escape to the mountains, no matter how young when captured, is to cut off one foot, the loss of which does not much injure their efficiency for paddling or rowing. The children, when in the trees, are not readily distinguished from monkeys. When the child is old enough to support itself, it leaves its mother, and neither seems afterward to think of the other. The wild men of Mindanao build no huts, sleep among the branches of trees, prepare no store of food for the future, cook no food, and are considered by the civilized or half-civilized people near the coast as little better than beasts.

SEC. 14. *Bushmen*.—The Bushmen have usually no homes save holes in the ground under or behind bushes, though a few among them plait mats and make sheds with them for shelter. They eat snails, lizards, wild animals, and neat-cattle stolen from the white men, Hottentots, or Kaffres. They have no distinctions of rank, no political or social law save that of the strongest, no words indicating a difference between married and unmarried women, and it is even said that they have no individual names, and cannot count more than two. Their language has a cluck to every syllable, so that it sounds as much like the clucking of a hen as articulate speech. Lichtenstein, in his travels in South Africa, describes a Bushman who had the "true physiognomy of the small blue ape. The vivacity of his eyes, the flexibility of his eyebrows, which he worked up and down with every change of his countenance, the apparently involuntary movements of his nostrils, of the corners of his mouth, and even of his ears, all suggested a relationship to the monkeys. There was no expression in his countenance suggestive of any con-

sciousness of mental power or any emotions save those which are common to brutes. When a piece of meat was given him, and, half rising, he stretched out a distrustful arm to take it, he snatched it hastily and stuck it immediately into the fire, peering round with his little, keen eyes, as if fearing lest some one would take it away again ; all this was done with such looks and gestures that any one must have been ready to swear he had taken the example of them entirely from the ape."

SEC. 15. *Californians*.—The Indians of Central California occupied a fertile and beautiful country, with a delightful climate ; but they were very low in their savagism. They had no pottery, no weaving, no domestic animals save dogs, no orderly public councils, no law save that of the strongest. There was no marriage ceremony, and no sanctity in the marriage relation. Polygamy was common. Their language consisted of very few words, and had no abstract nouns. There were no words for life, time, heat, honesty, reason, peace, truth, love, virtue, vice, happiness, virgin, father, mother, old, or young. The idea of "my father," or "your mother," was conveyed in one word ; and bad, short, few, narrow, and distant, were expressed by negatives, as not good, not long, etc. The men generally went quite naked in summer, and in winter wore only a deer-skin over the back.

The people of the Andaman Islands have no marriage for life, no exclusive cohabitation of one man with one woman, and little or no regard for consanguinity in the cohabitation of the sexes. Many of the women are regarded as the property of the tribe, or collection of men living in the same neighborhood. A man and woman frequently stay together till they have

a child and have weaned it, and then separate, to seek other mates.

Such are some of the savages of our own time, after they have been within the direct or indirect influence of civilization for several centuries; and we assume that their ancestors, several thousand years ago, were still lower and nearer the apes in their condition and mode of life.

SEC. 16. *Subjection to Nature*.—The primeval savages were governed in their mode of life, to a great extent, by the climate, flora, and fauna of their country. Having few domestic animals, and little skill in tillage, they depended for their support mainly on game, wild fruits, and roots. As they spread out from their original homes in the tropics, they found great variations in their surroundings. They went from torrid heat to regions where the winters were piercing cold; instead of showers every day, with an annual rainfall of fifty, or, in some places, one hundred and fifty inches, they encountered almost perpetual drought, with a rainfall of only three inches; the fertile soil was represented by bare rocks or barren sand; beyond the dense tropical forests they came to wide deserts, where they could travel for weeks without seeing a tree or a brook; and then to the oak-forests in the fertile valleys of the temperate zone and the coniferous forests of the colder climes, or poorer soils. Going northward from the equator, the savage left behind him successively the bread-fruit, banana, cocoa-palm, date-palm, orange, wild-apple, plum, acorn, and wild cereals, among the vegetable productions; and, among animals, the elephant, rhinoceros, antelope, deer, elk, and moose. Every new variety of climate, and of animal and vegetable food, compelled him to make a material change in his

habits of life. In some districts he was restricted mainly to a single class of diet, either vermin, shell-fish, fish, blubber, birds, ruminants, fruits, or roots, as circumstances permitted; in other districts, he found a large variety.

§ 17. *No Accumulation.*—Perhaps the chief characteristic of savagism is that it does not accumulate property. In many tribes the arms and clothes of the man are burned or buried with him: and in other tribes, where they are preserved to be used by the heir, he does not increase their stock. Thus it is that, after a lapse of centuries, neither the tribe nor any family has added any thing to its wealth. In many countries any attempt to accumulate is regarded as an indication of meanness; and he who wants to have influence among his associates must divide among them any valuable thing that he may acquire in hunting, fishing, war, or intercourse with civilized men. In Washington Territory and in New Zealand, some of the savages manage, by selling fish or game, trading or letting out slaves, to gather considerable sums from the white men, and then they invite the members of their tribe to a grand feast, and divide the property as equally as possible among all, whereupon the donor, who may at the end be the poorest of them all, is yet regarded as having acted nobly, and entitled himself to great honor and influence, and an extra share of assistance in case he should come to need.

§ 18. *No Division of Labor.*—There is little or no division of labor among savages, except between the sexes. All the men are warriors and hunters or fishermen; all the women gather fruits and seeds, catch vermin, prepare the food, carry burdens, and, when occasion requires, build huts. In the lowest stages no per-

son devotes himself to a special occupation ; there is no accumulation of property to be used in trade or barter ; and the want of a government to protect property rights is not felt. There is also a marked inability to coöperate in war or labor. Every man wants to act independently, even if much labor could be saved or much danger avoided by combination. Organization and combined effort in war or the management of public affairs require consultation, subordination, and the recognition of the authority of superior reason or experience ; and are not suited to primeval savages, who make war and gain their living on principles similar to those which govern carnivorous brutes. Even when savages unite to overcome a formidable animal, or to drive small game into a trap, their combination is little better than that of a pack of wolves which attack a cow or bison, some threatening her in front, while others cut her hamstrings and disable her at the heels.

SEC. 19. *Polity*.—Among savages generally, there is scarcely any thing that deserves the name of polity. The national idea has not yet dawned ; there is no record of law, and no tribunals for the administration of justice. Crime is regarded as a private, not as a public wrong, and nobody has any right to punish the criminal save the victim or the victim's relatives or friends. Might makes right. The chiefs have little authority, and the head of every family or group of families has much. Sometimes the group is composed of one old man and his descendants, and then the patriarchal relation rises.

SEC. 20. *War*.—War, which, according to an ancient proverb, is the natural state of man, is universal among savages save the Esquimaux, and is the most honorable occupation. They are probably not more

quarrelsome, blood-thirsty, or brave, than civilized men, but they have no other field for their ambition, no other road to profit by superior courage or acuteness, no other remedy for their wrongs. There is no legal check on their caprice and cruelty, no enlightened moral sense, no strong public opinion, no sense of security, and no record of treaties to show the precise terms of any agreement to keep peace. Besides, there are no facilities of travel or influences of trade to extend acquaintance or preserve uniformity of language; and thus the inhabitants of two neighboring valleys soon become strangers in person and in tongue, though not separated in blood by more than three or four generations. When a man is killed, even if it be by accident, custom requires his relatives to retaliate on the slayer, and, if he cannot be found, then on one of his relatives, or perhaps a member of his tribe. In the absence of law, personal might makes right. The brave, strong, and skillful warrior, whose superiority is often of a ruffianly character, can plunder the weak and cowardly who have no redress. He who kills an enemy is a hero; and, in some tribes, honor is gained even by the assassination of a friend without provocation. Among the Dyaks of certain districts, a man cannot marry until he has killed somebody, the circumstances of the killing being matter of no relevancy so far as the right to marry is concerned. In many savage tribes the majority of the men live in constant apprehension, which is justified by the fact that most of them die by violence.

War is made with little system. There are no armies or well-trained bodies of troops. Attacks are usually made by surprise or from behind shelter; and every man is supposed to select his own position and

determine his own movements. Even when considerable numbers are engaged, the contest is nothing but a large skirmish. The existence of peace between two tribes begets no cordiality or confidence. The spirit of savage life is a struggle to kill one another; and the proportion of deaths by violence in all savage tribes is frightfully large. As murder is not subjected to any punishment by law, and, on the other hand, it is often rewarded by distinction, it is far more frequent than in any higher state of society. There is no law save the arbitrary will of the chiefs and the edicts of the priests. Retaliation for crime being under no official supervision, and occurring between persons bitterly hostile to each other, has no moderation, and is often worse than the original offense. It is a brutal contest, in which the virtuous and humane feelings are injurious rather than beneficial to the possessor. The more cruel the savage, the better the chance for him to triumph, survive, reach high consideration, and perpetuate his blood.

➤ SEC. 21. *Religion*.—Travelers say that certain savage tribes have no religion, but the correctness of this assertion is doubtful. Religion, as enlightened men understand it, may be lacking, but in one form or another it has been found among all men whose modes of life and thought are thoroughly known to us. In its lowest phase it is a fear of an unknown power, and this fear is with many tribes a powerful influence. The sorcerers who control the unknown power, the medicine-men or priests who can discover and defeat the sorcerers, the prophets who expose the false medicine-men and priests who know how to conciliate the deities, take rank near to or above the chiefs. The savage is fenced in with superstitious fears, by the help of

which he is enslaved and his life imbittered. Understanding nothing of the causes of natural phenomena, he is ready to accept the suggestions of his own fancies or the assertions of priests, who find an opportunity to advance their own interests, even when they believe the superstitions which they teach. Earthquakes, eclipses, comets, lightning, thunder, and even slight accidents, are regarded as indications of coming misfortune, which the sorcerers or priests could avert. As the savages advanced in culture, they began to believe in good and evil spirits, who could be propitiated by presents, sacrifices, even of human beings, prayers, kneeling, incense, self-humiliations, and other observances akin to those used to conciliate their chiefs, and by favors conferred on the priests, who were supposed to be the favorites of the spirits. Idolatry and an ecclesiastical system were the natural outgrowths of such superstitions.

SEC. 22. *Women.*—Women are slaves, and are held by titles of relationship, purchase, and conquest. The daughter belongs to the father, and, after his death, to the eldest son, nearest male relative, or strongest heir. The sister may thus become the property or slave of her brother, and the mother of her son. This ownership is frequently superseded by sale, and wives are generally obtained by purchase. They thus become the slaves of their husbands; and their number is the main indication of wealth in many tribes. They must wait upon their master, do all the drudgery, and obey his orders implicitly. He can divorce them at pleasure, and, in the lower tribes, is not called to account for killing them or their children. The girls are to be sold, and their price is regarded as a compensation for, or a profit on, that paid for the mother. If any heavy

game is killed, the woman must carry it home; she must gather acorns, seeds, and fruits; she must grind the seeds between two stones; if living near the seashore, she must dig clams or dive for shell-fish; and, when her master changes his residence, she must carry his movable property while he walks along at his ease. The wife who is first bought, or who has relatives in the tribe, is treated with more consideration than those obtained subsequently by purchase or by conquest from other tribes. In some tribes the marriageable girl who has not been sold by her father is not held to a very strict rule of conduct; but there are many remarkable variations in the customs regulating the position of women. Infanticide is not unfrequent, and many of the women consider it an act of mercy to save their daughters from sufferings such as they themselves have undergone.

SEC. 23. *Arts.*—Savages have many useful arts, in which they had to make great advances before they could reach a higher condition. They made knives, arrow-heads, spear-heads, and saws, of flint and obsidian; axes, hammers, pestles, and mortars, of hard stone; needles, fish-hooks, chisels, and harpoon-points, of bone and hard wood; fire-sticks, slings, spears, clubs, digging-sticks, bows, arrows, throwing-sticks, mats, nets, cloth, baskets, pottery, bread, fermented drinks, and huts. They domesticated the dog, and probably other animals, and cultivated various kinds of fruit and grain. Many of these articles, now prepared with little labor or superseded by others of more service, were not produced of good form and quality until after centuries of experience. That which is now the work of ten minutes was, to the early savage, the task of months. By plastering wet earth over a basket to protect it from

burning, he learned to make pottery ; but ages elapsed before he could find good clays and mould them or bake them thoroughly. Basket-making suggested weaving ; but he had to learn to make long and strong thread by twisting short and weak fibres together, and to shear wool, or separate vegetable fibres from the reed or stalk to which it is attached, and to construct looms in which the threads could be crossed and pressed together into a close web. Flint and obsidian being hard and brittle, edge-tools were made of them, not by grinding, but by fracture, a single blow sufficing to break off a sharp knife from a block of stone of the proper size and shape.

Agriculture, which extracts from the soil large and regular crops, and thus maintains a dense population in permanent homes, never reaches high development among savages, because they have neither the metals to make good tools, the military strength to keep their fields secure from devastation, nor stable laws to protect the title to accumulated property. The first agricultural implement is the digging-stick—a sharp pole. Four or five savages drive their digging-sticks convergingly into the ground round a circle about a foot and a half in diameter, and then prize up the piece inclosed in the circle. They break up the piece, and thus, with much labor, prepare the ground for planting.

SEC. 24. *Ornament.*—Savages are fond of ornament, but much that to them appears ornamental is to the civilized man ridiculous or offensive. Having little consciousness of intellectual worth, they seek to make an imposing appearance by crude devices. They delight in bright colors. Bright blues, yellows, and scarlets, daubed over the face, are considered great additions to both masculine and feminine beauty. Among the Polynesians generally, tattooing with red and black

was a necessity for a man who wished to have much influence ; and a chief who objected to the severe pain, the serious expense, or the uselessness of it, was denounced as a mean-spirited fellow or an enemy of the gods. Among the Feejees, the hair of the men was put up with an elaboration of care, an enormity of expense, that might fill the most fashionable Parisian hair-dresser with despair. Rings are worn not only on the fingers, wrists, and ankles, and in the ears, but also in the septum of the nose, in the nostril on each side, and in the under lip. Sticks, sometimes half an inch in diameter and four inches long, are kept sticking through the ears or the septum of the nose. Certain African tribes insert a grooved ring an inch and a half in diameter in a hole of equal size in the lower lip, rendering it impossible for them to close their mouths tightly. Fashion in many tribes requires the teeth to be filed to points ; in others they are blackened. Distinction was given to freemen among the Flathead Indians by pressing a board on the forehead of the infant, so as to protect the warrior from the danger of being mistaken for a natural-headed slave.

SEC. 25. *Stimulants*.—Stimulants and narcotics are in general use in the temperate and torrid zones among savages, as well as among men in the higher stages of culture. In Malaysia, the betel-nut ; in Hindostan, hasheesh ; in China, Persia, and Turkey, opium ; in Peru, coca ; in Paraguay, maté, contain the needful material that can be obtained, by chewing, to bring on a feeling of nervous quietude, apathy, or stupefaction. The same sensation can be caused by smoking or chewing tobacco, by drinking the saps of certain trées, the juices of certain fruits, the infusions of certain grain, and the milk of domestic animals prepared by fermenta-

tion. Warm drinks and opium, though not unknown to savages, were not in common use among them.

Having thus spoken of the general features of savagism, let us consider some special phases of it, including the condition of the Esquimaux and of certain Polynesians.

SEC. 26. *Esquimaux*.—The Esquimaux, unlike other savages, have no war, but no communities live at peace. In their climate tillage is impossible, and there is very little indigenous vegetable food, so they must depend almost entirely upon the arctic animals, including the seal, whale, white bear, reindeer, and various kinds of fish and birds. The greater part of their diet consists of fat, which supplies the carbon necessary to keep them warm by its slow combustion in respiration. They have neither government, religion, nor marriage ceremony. Their winter huts are made of snow, and the only artificial heat is supplied by a lamp. They are polygamous. They drink the fresh blood of the reindeer, and eat the half-digested lichen found in his paunch for dessert. Their boats, weapons, and fur clothes, show much skill and a nice adaptation to the scanty resources within their reach.

SEC. 27. *Hawaiians*.—Among the Polynesians, the Hawaiians were in some respects the most remarkable. They were governed by chiefs who held despotic power by inheritance through the mother, and exacted servile homage from their subjects. There was no definite religious creed ; but there was a ceremonious worship of numerous ugly idols and savage divinities. A powerful priesthood held control over the popular superstition, and surrounded it with factitious sins and oppressive regulations. The *taboo*, or ecclesiastical prohibition, excluded the poor and the weak from many of the pleas-

ures of the rich and powerful. Permanent and general taboos forbade the women to eat with the men, or to eat certain delicate and rare kinds of fish and fruit. Special taboos, indicated by signs commonly understood, preserved certain springs, fruit-trees, fields, hunting-grounds, and animals, for priests and nobles. Human sacrifices were offered in their temples, and any violator of a taboo was tortured to death. There was no marriage-ceremony, nor did law or custom impose any check on the separation of those who had cohabited together. The father had authority to kill his child, and the husband was seldom called to account for murdering his wife. The chief article of cultivation was the *taro*, a tuber which grows under water and yields very abundantly. Canoes were hollowed out of tree-trunks, and the people were excellent navigators, swimmers, and fishermen. They had no woven cloth, pottery, or metals. War was the chief occupation of the men, and life was very insecure; yet, notwithstanding their subjection to war, despotism, and superstition, the Hawaiians had joyous dispositions, and were described by early navigators as the happiest people in the world.

SEC. 28. *Feejeeans*.—The Feejeeans are darker in color and more cruel in disposition than the Hawaiians. Murder was frequent and systematic, and general distrust imbittered all the relations of life. The killing of a man, even if committed without provocation or by treachery, was a matter for boasting and a source of honor. Old age was despised, and the aged people were often killed to save the trouble of taking care of them. On the death of a chief, his wives and slaves were strangled. The majority of the deaths were caused by violence. Cannibalism was a common practice. The government was despotic, and women were oppressed.

The Feejeeans made pottery and wove mats, and, alone among the Pacific-Islanders, used soups and boiled food, and made mosquito-curtains. They, as well as most of the other Polynesians, made an intoxicating drink from the awa-root, which the women chewed and spat into bowls. After the liquor thus obtained fermented, it was drunk by the men. The Feejeeans, like the Polynesians generally, had the female right of inheritance, the chiefship passing, not to the eldest son of the dead chief, but to his eldest nephew by a sister. With their loose notions about marriage, paternity was doubtful; and the surest manner to preserve the succession in the same blood was to depend on maternity, about which there was no question.

SEC. 29. *Society-Islanders*.—In the Society Islands the priests and chiefs had less power than at Hawaii, but otherwise the characters of the people and institutions were very similar in the two groups. In Tahiti, every place was filled with fairies and kindly spirits. The people prayed before commencing any important undertaking, and always offered the first fruits and fish of the season to their idols. Chastity was not regarded as a virtue among them.

SEC. 30. *Maoris*.—The Maoris, or aboriginal New-Zealanders, were warlike, and the country was a large battle-field. Slavery, polygamy, human sacrifices, and cannibalism, on occasions of ceremony, were among their recognized institutions. In one case two thousand men were killed at a feast. Land, and rank with it, descended by primogeniture. Movable property was held in common. Nobody was very rich, and nobody very poor. Fern-root, yams, taro, fungi, dogs, seals, rats, and fishes, were the chief articles of diet. Flax-mats, bird-skins, and dog-skins, were used for clothing.

The men did much of the hard work. Chastity was not exacted of unmarried women. Public assemblies were frequent, and they decided the principal political questions ; and all free men and women had the right of speech there. The priests had great influence, the taboos were more common and more strict than in Hawaii, and the ceremonial of worship more complex. The first fish of a fishing expedition, and the first fruit of a field, were reserved for the gods. Polytheism and idolatry were part of the religious system.

SEC. 31. *Kaffres*.—Among the pastoral tribes, the Kaffres of South Africa may be selected as a representative class. Their chief wealth is in their herds of neat-cattle, but they also cultivate maize and millet. They live in huts built of slim poles thatched with reeds. The door is two feet high, and there is neither window nor chimney. War is the chief business of the men, and the women must do all the hard work, including tillage and making the grain for food and beer. The last is made in water-tight baskets. Girls are a source of wealth, and are sold for eight or ten cows each. The men are polygamous, and have power to kill their wives, but cannot divorce them without consent of the council of the tribe. They have no definite religious ideas, but have prophets and believe in sorcerers. When the prophets denounce any one as a sorcerer he is put to death. Nobody but the head chiefs are safe from such denunciation.

SEC. 32. *North-American Indians*.—The North-American Indians, who several centuries ago inhabited that part of the United States east of the Mississippi, cultivated maize, but lived chiefly by the chase. They were the noblest race of modern savages. Their tribal organizations were powerful and republican in spirit.

The chiefs were hereditary, but their powers were limited by public councils, which were frequently held, and in which public affairs were discussed in an orderly manner and decided by a majority vote. Only the old men, or those who had distinguished themselves in war, were members of the councils. One vote was counted as good as another, and they had no degrading ceremonial when the ordinary man met the chief. Eloquence was not rare; and bravery and fortitude in suffering were general characteristics. They were cruel in war, and tyrannical in their treatment of women.

SEC. 33. *Primitive Language*.—The first languages of the primeval savages were probably monosyllabic, with few words and no inflections. It is said that many ignorant persons in civilized nations do not use more than three hundred words, while their educated acquaintances may use ten thousand. Of all the languages now in existence and explained for us by linguists, the rudest in many respects is the Chinese. It has no inflections and no parts of speech. A word is a noun, verb, or adjective, and, if a noun, subject or object, according to its place in the sentence.

The tongue of many savages, like that of children, cannot pronounce certain sounds in common use in the languages of civilization. Infants will say "tum" instead of "come," substituting *t* for *k*, and the Hawaiians do the same, the two letters being interchangeable and equivalent with them. *L* and *r* are confounded in the same manner; Honolulu and Honoruru being considered the same. *B* is substituted for *v*; and the Chinamen says "belly good" for "very good." Most Indians of California cannot pronounce "*f*," and their nearest approximation to "fire" is "piway" or "pinh." The Hawaiians have no *f*, *q*, *r*, or *s*, and make little

use of the other consonants except *k*, *l*, *h*, *p*, *m*, and *n*, which are constantly recurring, and a person might sometimes imagine, from listening to them for a short time, that they have no others. Two consonants are never brought together, and every syllable ends with a vowel-sound. These features of savage speech all remind us of young children.

SEC. 34. *Agglutinative Speech*.—Next above the monosyllabic tongues of the Chinese class are the agglutinative, spoken by the Turanian race, including the Tartars, Turks, Huns, Hungarians, Finns, Esquimaux, Polynesians, and American Indians, so far as known. In the agglutinative speech, complex words are made by adding, without change, numerous particles to the main root. Instead of conveying the idea of the verb “loves” or “loved” by a simple word, the Turanian makes a compound and says “love-does” or “love did,” and on the same principle makes all his plurals of nouns and derivative forms of verbs, often having four or five particles attached.

SEC. 35. *Aryan Tongues*.—The Aryan, called also the Indo-European and Indo-Germanic, race, including the Hindoos, Afghans, Persians, Circassians, Georgians, Armenians, Celts, Greeks, Latins, Slavonians, and Teutons, use the inflective speech, in which derivatives are formed by melting particles in with the root-word. Instead of saying “John-his,” “love-does,” “love-did,” as the Turanian says, we use “John’s,” “loves,” “loved,” and so on throughout the inflections. Not only are the Aryan tongues alike in their rules of inflection, but there is a great similarity in their words, so that when we compare the Sanscrit, Persian, Greek, Latin, German, Slavonic, and Celtic words for father, mother, daughter, brother, sister, sun, moon, god, fire, and a

score of other fundamental ideas, we see a similarity that could not be due to chance or to any other influence save that of common origin.

SEC. 36. *Semitic Speech*.—A minor class of tongues, and one the relation of which to the others is not precisely ascertained, though it is regarded as superior to the agglutinative and inferior to the Aryan, is the Semitic, in which the root-words generally consist of three consonants. The Semitic nations are the Assyrians, Babylonians, Phœnicians, Philistines, Carthaginians, Jews, and Arabs; and it has been supposed by some authors that the organizers of the Egyptian monarchy were Semites, who fused with the higher rank of their subjects, and adopted the larger part of their tongue, to which no precise place in the classification of language has been assigned.

W. D. Whitney, in his lectures on "Language and the Study of Language," says:

"The Semitic tongues possess in many respects a more peculiar and isolated character than any others which exist. Their most fundamental characteristic is the triliterality of their roots. With rare and insignificant exceptions every Semitic verbal root—the pronominal roots are not subject to the same law—contains just three consonants, no more and no less. Moreover, it is composed of consonants alone; that is to say, whereas in the Indo-European and other tongues the radical vowel is as essential a part of the root as any other, even though more liable than the consonants to phonetic alteration, in the Semitic, on the other hand, the vocalization of the radical consonants is almost solely a means of grammatical flexion. Only the consonants of the root are radical or significant elements; the vowels are formative or rational. Thus,

for example, the three consonants *q-t-l* form a root (Arabic), which conveys the idea of 'killing;' then *qatala* means 'he killed;' *qutila*, 'he was killed;' *qutilu*, 'they were killed;' *uqtul*, 'kill;' *qatil*, 'killing;' *iqtal*, 'causing to kill;' *qatl*, 'murder;' *qilt*, 'enemy;' *qutl*, 'murderous,' and so on."

CHAPTER II.

BARBARISM.

SECTION 37. *Definition.*—The next stage of culture above savagism is that of barbarism, in which condition men have metallic edge-tools in common use, and public records, and build cities ; but have not advanced to general familiarity with the alphabet, free principles of government, and fine taste in literature and art. The ancient Egyptians, Assyrians, Persians, and Hindoos, were barbarians. For many centuries barbarism was coextensive with the possession of bronze, and all the barbarians were then in the Bronze Age ; but, after the discovery of the methods of producing and forging steel, some nations took that metal as a material for their edge-tools and still remained barbarous, as certain savage tribes have adopted it without rising above savagism. The Stone Age once prevailed wherever man existed ; the Bronze Age never did.

SEC. 38. *Bronze Age.*—Pure copper is found in many countries in a native state on or near the surface of the earth, and no doubt furnished the material of the first metallic tools ; but it was not hard enough to give great advantage over stone, nor was it ever used extensively. The discoveries that copper could be extracted from certain rocks by heat ; that tin could be extracted in the same way from other rocks ; that, by mixing about twelve per cent. of tin with it, the copper

could be converted into bronze capable of taking a hard, cutting edge ; that this alloy, by casting, could be fashioned into knives, chisels, hammers, swords, spear-heads, and arrow-heads—must have required centuries. Copper and tin can be melted with less heat than iron, which as it runs from the ore is brittle ; and the arts of converting it into steel, forging, and welding, were later in their origin than that of casting bronze.

SEC. 39. *Barbaric Arts.*—The acquisition of a stock of bronze weapons, in the savage tribe in which the arts of smelting and casting that alloy were first extensively practised, must have had a great influence on them. They soon became conscious of superior power ; their confidence led them to go into battle in compact masses ; and they conquered and enslaved their enemies not provided with metallic weapons. Whenever they knew of a desirable valley in the possession of stone savages, they took it. Soon they began to supply their slaves with agricultural tools. The awkward digging-sticks of the Stone Age were superseded by hoes, spades, and plough-points. The improvement in tillage increased production ; the population became dense ; the increase of intercourse led to observation, polish, and orderly government. Harvests became regular, abundant, and secure ; the arts of working wood and stone were developed ; durable and comfortable houses were built ; nationalities grew up ; cities rose and became centres of industrial skill and of political, social, and religious ideas. The barbarians invented the level, square, plumb, plane, wheel, harrow, plough, and loom ; and discovered the arts of quarrying and cutting stone, brick-making, mixing sand, lime, and water, in mortar, spinning, weaving, dyeing, fixing dyes with mordants, and facilitating the smelting of various ores with fluxes ;

making leaven, glue, glass ; domesticating many animals valuable for food, wool, milk, or draught ; the modes of perpetuating desirable qualities in animals and fruit-trees, and the value of irrigation and various methods of recording ideas. The earliest records were probably made with knotted cords, but subsequently with hieroglyphics representing full words, then syllabic marks, and finally alphabetic signs or letters.

SEC. 40. *Homes*.—Bronze exerted a great social influence. It gave a sense of security and provided the means for the accumulation of wealth. The metal was durable and of permanent value ; it enabled men to build good houses, to erect fortifications, to clear fields, and to construct irrigation ditches. The houses, cool in summer and warm in winter, were the centres of a closer family organization ; the children received better care, and the women more consideration. After the force of the wind had been broken by close walls, lamps were brought into use, and the family gathered around the artificial light in the evening to enjoy conversation, which served to instruct and refine the savage and barbaric nature.

SEC. 41. *Polity*.—Barbarism established fixed laws and strong nationalities, consolidated the despotism and legalized the polygamy and slavery which had previously existed, added caste to them, and built up powerful priesthoods and complex ceremonials of worship. It was a system in which social, political, and ecclesiastical tyranny were consolidated, legalized, and consecrated. Religion was used to sanctify the institutions of oppression and the persons of the oppressors. Hatred of aliens, wars against unoffending nations, general ignorance and disregard of international equity, the extermination or enslavement of conquered ene-

mies, the mutilation and torture of captives, slaves, and persons accused of crime, the abject submission of the subjects to their rulers, of slaves to their masters, of wives to their husbands, and of the lower to the higher castes, were expressly or impliedly commanded by the gods. No injustice was too flagrant, no cruelty too inhuman for the approval of the harsh priestcraft of barbarism. The priests kept the only records, and had for a long time exclusive possession of the art of writing, which was incomprehensible, and even sacred, to the ignorant, and proof that its masters were the favorites of Heaven, and the authorized interpreters of the Divine will. They were the teachers of the kings and nobles, and bred them up in the superstitious regard for the rules of the Church. In some cases the priests made it criminal for any one save a priest to undertake to interpret the sacred books, or for a low-caste man to read them; and perhaps in some instances forbade instruction in the art of reading to any one save their own class.

SEC. 42. *Caste*.—A prominent feature of barbarism is caste, a system of social bondage, wherein the lower ranks are condemned to hereditary and perpetual subjection, and restricted to certain occupations which are declared more or less disgraceful, while the professions of the higher ranks are made honorable and profitable. The divisions between the classes are watched and enforced by all the powers of the Church and the state. The transfer of an individual from one class to another above him is impossible; the slave may be emancipated, but the low-caste man can never be elevated. The man may take a woman of a lower rank for a concubine, or, in case of poverty, may pursue the occupation of a lower rank, but never of a higher, nor dare a

woman ever unite herself with a man beneath her. The rank runs with the blood; no royal grant, no wealth, no success, can raise the low man; no murderous crime, no tyrannical force, no poverty, can degrade the high one. Of all the horrid schemes of oppression, this is probably the worst; and experience has proved that, when once fastened upon a people by the universal acceptance of the superstition sanctifying it, caste is wonderfully powerful, and may resist the influence of the government, as it does in Hindostan, where it is still potent in districts which have been under the British rule for two centuries, and had been under Mohammedan princes for several centuries before.

The most complex systems of caste were those of Hindostan and Egypt, and they must have been founded in conquest. In the former country the main ranks were priests, soldiers, peasants, and laborers; in the latter, priests, peasants, artisans, and laborers. In Hindostan many soldiers were tillers of the soil in time of peace; in Egypt, the soldiers were drawn from the peasants. Each of the lower castes was divided into many branches or occupations, which usually descended from father to son. Thus the Egyptian artisan-class included shopkeepers and musicians; the laborers included domestic servants, fishermen, poulterers, shepherds, and swineherds. In some nations, as among the Jews, Aztecs, and Assyrians, there seems to have been no strongly-marked rank founded on caste, save that of the priests, who may have acquired their privileges, not by conquest, but by superior knowledge and political and ecclesiastical influence.

SEC. 43. *Religion*.—The religions of barbarism have a family likeness, and suggest the idea that they must have grown naturally out of the superstitions of sav-

agism under the influence of the spirit which governed the development of the barbarous political institutions. They are generally natural in their character, and based on the theories that there are many divinities ; that the favor of any one could be secured by devout worship ; and that he could use his power to sustain his worshipers in war against strangers. Even after polytheism had been abandoned, the national character of the religion was long maintained, and also the belief that the Deity hated those nations which did not know him by his true name, or worship him by the authorized forms. Sacred books, a consecrated priesthood rigidly closed against those not authorized by a privileged blood to enter it, and possessing the exclusive rights of keeping and interpreting the Scriptures, and of mediating between the common people and the gods, temples, and worship by sacrifices, incense, feasts, fasts, chants, prayers, genuflexions, prostrations, and pilgrimages, were found among the Egyptians, Assyrians, Babylonians, Aztecs, Quichuans, and Persians, as far as we can trace them back in their barbarous condition. They existed in Egypt certainly as early as 3000 B. C., and probably in 5000 B. C. The people humiliated themselves before their gods in the same manner as before their kings, and endeavored to propitiate them by the same gifts and honors. In Egypt, Assyria, and Anahuac, the people were taught polytheism, but many of the priests were monotheists.

SEC. 44. *Worship.*—The forms of worship were more ceremonious than any of modern times ; the rules for the conduct of the priests were numerous and precise, and violations of them were regarded as serious offenses. A long list of factitious vices was proclaimed, and guarded by severe penalties inflicted by the civil

law. A show of indifference when passing an idol, the irreverent use of the name of a divinity, any injury to a sacred beast, the eating of vegetables or meat declared unclean, association and eating with aliens, ordinary work on a day set apart for a sacred festival, and ridicule of pilgrimages or of alleged priestly miracles, were grave offenses before the civil law and before public opinion. Many good principles of general morality were also taught, but they lost much of their influence because the priesthood attached far more value to the observance of their ceremonies. No matter how base the religions were in many features, yet they all urged their followers, in general terms, to be just, merciful, and charitable.

SEC. 45. *Morality*.—So far as general moral precept went, many barbaric nations were as far advanced as the most enlightened people of our own age. The duties of justice, honesty, mercy, kindness, politeness, forgiveness of injuries, generosity, and purity of thought, are inculcated in the sacred books of the Hindoos, Egyptians, Persians, and Chinese, and probably in those of the Assyrians. But, when we look beyond precept, and consider the general practice, we find that the morality of barbarism is far inferior to that of our highest civilization. It has been vastly improved by political, social, and intellectual progress. The presence of the golden rule in many ancient codes did not prevent the maintenance of many forms of oppression for centuries, with the direct approval of the priests, who claimed to be the representatives of Divine power, and the special watchmen of national and individual morality. The most scrupulous defended such wrongs as caste, despotism, and slavery, on the grounds that the well-being of mankind required the division of so-

ciety into classes, the absolute submission of the inferior to the higher ranks, and the severest punishment of any sacrilegious wretch who should dare to set up his own judgment against the laws of the gods and the sacred customs of his country; and the less scrupulous practised cruelties and oppressions obviously unnecessary for the preservation of their social and political systems. They generally accepted the idea which has been extensively preached in our own day by the advocates of slavery and others, that humility is a virtue of the highest merit in those born to inferior positions, a feeling closely akin to that with which all men should approach the Deity, and of the utmost importance for the attainment of salvation. Whatever humbled men was considered a blessing, and therefore oppression was a good proportioned to its thoroughness, strictness, and wide extent. As high morality must be founded on the recognition of the rights of man, of course it did not exist among barbarians.

✓ SEC. 46. *Public Monuments*.—We are astonished at the immense public monuments left by some of the barbarous nations, especially the Egyptians, Assyrians, Aztecs, and Quichuans, indicative of the complete control held by the government over the labor of a vast number of subjects. The Quichuan main road, built far up on the slope of the Andes, parallel with the general course of the main ridge, and fifteen hundred miles long, was one of the most remarkable works ever executed by man, and was never equaled in its kind until the Steam Age offered new forces, new materials, and new motives, for the construction of highways. The Quichuan road was in many places cut into the side of great cliffs, was in others supported by high walls, and was everywhere well graded and paved in a smooth and

solid manner. One irrigating canal was four hundred miles long, and there were many in the country. Some of the stones of the fortress of Cuzco were thirty-five feet long, fifteen feet wide, and six feet thick, and they had been transported from a quarry twenty miles distant. The mason-work was unsurpassed in the neatness of its execution, some of the joints being almost undiscoverable, so closely were the large blocks made to fit together. The royal buildings at Quito were built of stone from Cuzco, nine hundred miles distant (that is, if we are to believe a report that seems to be credited by such a careful writer as Prescott), and the great square of Cuzco was covered with sand from the beach of the Pacific, two hundred and fifty miles distant, and eleven thousand three hundred and eighty feet lower in elevation.

The Pyramids of Egypt are yet, as they were twenty-five hundred years ago, among the wonders of the world. Of these, sixty-seven are standing, and the largest, that of Khufa (Cheops), near Gizeh, is seven hundred and fifty-six feet square on the ground, and originally four hundred and eighty-six (now four hundred and seventy-one) feet high, virtually containing ten million cubic yards of material, most of it brought from long distances. The Temple of Karnak had one hundred and forty columns, each eleven feet thick, and seventy feet high. The Sphinx is ninety feet long and seventy-four feet high, and the face alone is twenty-six feet high. Of obelisks, the Egyptians made several score of single stones, all at least fifty feet, the largest one hundred and seven feet high. The diameter at the base of the obelisks was almost invariably one-tenth of the height. Some of these immense needles were transported several hundred miles; and we are in-

formed that a block thirty-one feet long, twenty-two feet wide, and twelve feet thick, now lying at Sais, was brought from Elephantiné, two thousand men having been employed three years on its transportation. Thebes, even in its ruins, has, it is said, the greatest collection of large stones cut by hand known in the world. No city of modern times approaches it. Besides the pyramids, the temples, the obelisks, and the dwellings of the high civil officers, much remarkable work was done in making an artificial lake in the valley of Fayoom, or enlarging a lake that had been there before, and then cutting a canal from the Nile, so that in time of flood the surplus water could be led into the lake and there stored until after the river had fallen.

In Assyria, the cities, or considerable portions of them, were built on artificial mounds, which still remain, rising like hills in the midst of wide plains. The wall of Nineveh was sixty miles long, one hundred feet high, and thirty feet wide. The wall of Babylon was forty miles long, seventy-five feet high, and eighty feet wide. These figures, for the height and width of the Babylonian walls, are the least given by eight ancient authors, and Herodotus (the most trustworthy of all in most of his statements) says it was three hundred and thirty-five feet high and eighty wide, but this was perhaps intended to apply to the size over a narrow and deep ravine, where the figures were exceptional. At Babylon, besides many small mounds, there are four large ones, covering more than three hundred acres of area, with an average height of more than seventy feet, all results of human labor. The Pyramid (or earth-mound) of Cholula, built by the Toltecs, a nation who preceded the Aztecs, and probably nearly akin to them, had an area of forty-five acres, was fourteen hundred and forty

cle stood for the day, or a year; a crescent for the night, or a month; a fox for cunning; a hare for timidity. The complex figures were gradually simplified. Thus, the pictures of the horse, the lion, the fox, the hare, and other quadrupeds, used in literal and metaphorical senses, were drawn with a few strokes in such a manner that they no longer looked like the objects represented, and that their meanings could only be learned from a teacher. Conventional signs were probably adopted for some ideas which the scribes could not convey literally or metaphorically by drawings, but presently they employed syllabic hieroglyphics, or hieroglyphics meaning polysyllabic words as originally used, but only their first syllables were to be taken under the system of syllabic hieroglyphics. Thus, the hieroglyphics of *parrot* and *donkey* put together would spell the word "pardon." This stage had been reached by the Aztecs before the Spanish conquest. The next step was to make an alphabet, and take only the first letter of the name of each hieroglyphic to make a word, and then, the great multitude of hieroglyphics having become unnecessary, the figures of those reserved for the letters were simplified into a short stroke or two, and all the rest were neglected. Thus, at last, an alphabet, like that used in modern times, had been reached, but in ancient Egypt, long after the alphabet had been invented, the older forms of hieroglyphics were still used, because the sacred books and the inscriptions on the ancient monuments were written in them alone, and could not be understood without them.

SEC. 49. *Quichuans*.—Having thus considered the general characteristics of ancient barbarism in the Bronze Age, we shall now look at some of the main

features of the social, political, and religious systems of various barbarous nations separately.

The Quichuan nation in Peru presented one of the most singular forms of barbarism. The government was an hereditary monarchy, and the sovereign was of divine blood, and held his seat by divine right. He was the head of the church, which had a complex ceremonial, required the people to worship the sun, and exercised so much influence over the people, and was so intimately mixed up with political affairs, that the government might be called a theocracy. The Inca owned one-third of the land, the church another third, and the people tilled the remainder for their immediate use, but did not own it. The tilled ground was all supplied with water by irrigation, and every year the people's third was distributed anew by the officials, every family receiving a tract less than two acres for each man. Every man was required to marry at twenty-four, and every woman at eighteen; the people to till the land of the church first, then that of the Inca, and lastly their own. There was a numerous nobility, who were priests and military and civil officers, and they obtained their support from the lands of the church and the Inca. In good years there was a considerable surplus of various kinds of agricultural produce, and this was stored up in magazines for cases of emergency, the supply on hand being sometimes sufficient for ten years' consumption of the entire nation. Cloth was woven of llama-wool and cotton by the common people under the strictest supervision, every house receiving a stock of raw material, and accounting for a proportionate amount of the manufactured article. Large stores were established in every district for local supply. Nobody among the common people was

permitted to be idle, and, on the other hand, the government never required excessive exertion, gave the people many holidays, and took excellent care of all those who were helpless from any cause. Among the common people nobody was rich and nobody poor. No one was allowed to travel, or change his occupation or dwelling-place, without consent of the government. Prescott tells us that "ambition, avarice, the love of change, the morbid spirit of discontent, those passions which most agitate the minds of men, found no place in the bosom of the Peruvian." No other government ever showed so much care for the welfare of the poor, or succeeded so well in securing their happiness.

The Incas ruled from Chili to New Granada, and were a conquering race, able to send two hundred thousand soldiers into the field at brief notice. They cared well for their soldiers, and placed the conquered tribes who submitted to their system of working on an equality of rights with their Quichuan subjects. The llamas were used as beasts of burden, and were sheared for wool; and wild-guanacos, akin to the llamas, were caught every year, sheared, and then turned loose. Gold, silver, and bronze, were in general use, the two former for ornamental purposes. Records were kept in *quipu*, or knotted cords of different colors, and keeping of the records was a business to which men devoted their lives. Every district had its record-keeper, who sent his records to Cuzco every year, showing how much grain, dried meat, cloth, and coca, and how many weapons he had in his magazine, how many births and deaths had occurred, and how many inhabitants and fighting-men there were in his district. The records thus sent to Cuzco were there kept in a central office, which thus obtained an annual census of the

whole population, and of the condition of all its industries and property. The nation had no foreign trade, nor is it known that any of its civilization was derived from abroad, but tradition said the founder of the Inca dynasty came from beyond the sea, and that it would be overthrown by white men from beyond the sea.

SEC. 50. *Aztecs*.—The Aztecs obtained possession of Mexico about two hundred years before the Spanish conquest, succeeding the Toltecs, who, having occupied the country four hundred years, and introduced their arts, disappeared in some manner not explained. Cortes found the Aztecs a powerful nation, with a capital city containing a great number of well-built stone-houses, and a population of three hundred thousand people. The government was an absolute monarchy, and the sovereign was elected by the nobles from the sons or nephews of the deceased monarch. Hieroglyphics were used; the laws were written out; there was a complex judicial system; and the judges of the supreme court, to whom there was an appeal in criminal but not in civil cases, held their places for life. Slavery was common, but was not hereditary. Every child was born free. The nobles, of whom thirty had each a hundred thousand serfs, owned all the land, and filled all the higher offices. A considerable standing army was maintained, and the profession of arms was the most honorable. The soldiers were organized in troops, each provided with a standard which could not be abandoned without incurring the penalty of death. The God of War was the chief deity of the nation.

There was a religion with a complex ceremonial, and with numerous priests, and with great temples built with walks ascending on the outside, and the ecclesiastical processions going to the top could be seen

from long distances by a great number of people. Sermons, prayers, music, offerings of fruits and flowers, human sacrifices, formal celebration of marriage, confession and absolution, were portions of their religious system. Thousands of men were slain on the altars every year. The priests fasted, mortified their flesh by cruel penance, and regarded the information obtained in the confessional as inviolably sacred. Women were admitted to the priesthood, and were well treated generally, their social position being quite as good as in modern Europe. Religious festivals occurred frequently. There were numerous divinities, but some of the leading men believed in only one God, and their sacred book contained passages teaching a high morality. They understood astronomy so well that their civil year lost only one day in eight thousand five hundred years, and their calendar was thus more correct than any other ever used by men. They wrote on cotton cloth, on paper made from the maguey, and on parchment.

The Aztecs were skillful weavers, dyers, masons, gardeners, farmers, and smiths in silver, gold, and bronze. Their jewelry was declared by the conquerors equal to any made in Spain in their time. They had no domestic ruminant, but they kept tame turkeys in great number, and contributed that bird, as well as vanilla, chocolate, and cochineal, to the valuable possessions of civilization. They cultivated maize, various other grains, several varieties of yam, cotton, and the maguey, which is the typical plant of Mexico, furnishing a farinaceous dish, fermented and, since the conquest, distilled liquor, and fibres for cords and paper. Other nations, similar to the Aztecs in their political, religious, and social institutions and industrial condition, lived in or near the valley of Mexico, and with

several of these the Aztecs were leagued, and with others they were at war, when the Spaniards arrived, and it was by the help of the enemies that the empire of the Montezumas was overthrown.

SEC. 51. *Egypt*.—In ancient Egypt the barbarous state of society reached its most important phase. Its government was the most durable; its existing monuments are the most abundant and the most remarkable; and its influence upon the subsequent course of civilization has been the strongest or the most clearly traceable. The territory in the ancient monarchy extended from 24° to 37° , and had fifteen thousand square miles of tillable land, which was overflowed every summer by the Nile, had a warm climate, and was protected against invasion by either sea or desert on every side. Here, at least 5000 B. C., a large population were already established, and they supported themselves by agriculture. When Herodotus visited Egypt, about 500 B. C., the priests at Thebes took him into a consecrated chamber, and showed him the sarcophagi of three hundred and forty-five high-priests, who had filled the office one at a time in uninterrupted succession, and in the order of legitimate descent, each holding his place for life, and having his own statue made while in office. Such a number of generations would cover a period of about seven thousand five hundred years, and would carry back the time when the high-priests began to preserve their statues to 8000 B. C. Plato, who visited Egypt, said the Egyptian pictures and statues made ten thousand years before were quite as good as those produced in his own time.

SEC. 52. *Egyptian Priests*.—The government was an hereditary monarchy, limited by a complex code of sacred law, and by a powerful caste of priests, who mo-

nopolized the learning, had charge of the higher civil offices, and exercised a wonderful influence over the people. The doctrine that there was only one Deity, a creator and governor of the universe, was taught to the priests, but was reserved for their use, while the people were led to believe in a multitude of divinities, and each district had its favorite trinity of gods, to which especial worship was paid; and, in many cases, certain animals were worshiped as incarnations of these divinities. In one district the ibis was sacred, in another the crocodile, and so on. The priests taught the resurrection of the body in a future life, the trial of the soul for its conduct in its mortal life before Osiris, the reward of the good in a place of bliss, and the punishment of the wicked in a sphere of suffering. Osiris was an incarnate son of the Deity, who visited the world in a mortal form to expiate the sins of mankind, and was slain by Typhon, the evil spirit. The priests possessed great wealth, and owned one-third of the land. The country was filled with temples, and religious festivals, celebrated with great pomp, were frequent. The forms of worship included processions, sacrifices of animals, offerings of fruits and flowers, chants, genuflexions, prayers, incense, fasts, and feasts.

SEC. 53. *Devout Belief*.—"Superstitiously attached," says Wilkinson, "to the then sacred institutions, and professing a religion which admitted much outward show, the Egyptians clothed their ceremonies with all the grandeur of solemn pomp, and the celebration of their religious rites was remarkable for all that human ingenuity could devise to render them splendid and imposing. They prided themselves on being the nation in whom had originated most of the sacred institutions afterward common to other peoples." The

Egyptian masses were most devout believers in the national religion, and they considered themselves the especial favorites of the gods, while all other nations were unblessed by divine favor, impure, and unfit for association with themselves. He who ate with an alien was considered to have committed a grave offense. An extraordinary degree of care and veneration was paid to the sacred animals, and he who killed one even by accident was usually slain forthwith by the people. When Cambyses invaded Egypt he drove cats and dogs before his troops, and the Egyptians were afraid to attack for fear of killing some of their gods, so the Persians had a comparatively easy victory; and, after the country had been subject to foreign dominion for centuries, the people were still ready to rise in insurrection to avenge the death of a cat.

SEC. 54. *Egyptian Morality*.—While the priests spent a large part of their time in ceremonial observances, moral teachings were by no means neglected. They taught the people very carefully how to conduct themselves in the trial after death, through which no one could pass to the abode of the blessed unless he could truthfully say: "I have not blasphemed; I have not stolen; I have not smitten men privily; I have not treated any one with cruelty; I have not stirred up trouble; I have not been idle; I have not been a drunkard; I have not made unjust commandments; I have shown no improper curiosity; I have not allowed my mouth to tell secrets I have not falsely accused any one I have made to the gods the offerings that were their due; I have given food to the hungry, drink to the thirsty, and clothes to the naked."

SEC. 55. *Egyptian Castes*.—The people were divided into castes, about the number of which there is

a difference of opinion. Wilkinson says there were four—priests, peasants, artisans, and laborers. The peasants included soldiers, boatmen, and hunters. The artisans included shopkeepers and musicians. The laborers included house-servants, fishermen, and poulterers. The castes were hereditary, and usually the son was required to follow the occupation of his father. The priests owned one-third of the land, the king another, and the soldiers a third. The artisans and laborers were serfs attached to the soil. A large standing army was maintained. The weapons were the bow and arrow, javelin, spear, sword, and sling, and the soldiers wore defensive armor. They also had war-chariots, each carrying two men. The Egyptians were a conquering nation. They subdued Palestine, Phœnicia, Assyria, Ethiopia, and parts of Arabia, maintained military colonies in those countries, and took their people as slaves.

SEC. 56. *Egyptian Arts.*—The arts had reached a high degree of development in early ages. Five thousand years ago bronze tools of excellent temper were in use; linen as fine as our cambric was woven; glass was blown and colored in a style not surpassed in modern times; blocks of stones weighing hundreds of tons were transported more than a hundred miles; the hardest stone was cut and polished; buildings were erected with the most durable and solid masonry; architectural taste was highly cultivated; some of the largest and most splendid temples were built; pyramids probably intended for tombs were erected; ornamental painting was common; pigments were so well understood that the colors of some of their pictures remain to this day as bright as any that we can make; their vases are as elegant in design and nice in their finish as those of

the best days of Greece; the figures on some of their obelisks of the hardest granite are cut as carefully as any cameos; and the stiffness and uniformity of their statuary is to be attributed partly to the influence of superstition, which required their sculptors to copy slavishly the awkward models of a remote antiquity.

SEC. 57. *Egyptian Chronology*.—There is a difference of opinion among Egyptologists in regard to the chronology of Egypt, but the predominant opinion is that the nation was prosperous and populous, and its political and religious institutions fixed, in the year 5004 B. C., when Menes, the first king mentioned by Manetho, took the throne. In his time a dike was made to protect Memphis; the course of the Nile was turned; and a great temple which stood more than four thousand five hundred years was erected. About three hundred and fifty years later the great Pyramid of Sakharah was erected. Between four thousand two hundred and thirty-nine hundred, the Pyramids of Khufa, Shafra, and Menkara, and the sphinx of Gizeh, were erected. A great temple at Karnak was built about 3000 B. C., and, a century afterward, the artificial lake of Fyoom was made. If we accept the latest dates ascribed to these structures by the scholars who have studied the antiquities of Egypt, we shall still find that they were considerably earlier than those known, by clear proof or strong evidence, to have existed in any other country.

The uniform dryness and warmth of the atmosphere in the Nile Valley preserved many buildings, inscriptions, and paintings which would long since have been destroyed by the moisture, frost, mould, or storms of less equable climes. Fortunately, too, for modern curiosity, the Egyptians were fond of writing, and they not only covered their obelisks with inscrip-

tions, but the walls and columns of their temples, the posts of their private houses, the handles of their tools, and even the winding-sheets of their mummies.

SEC. 58. *Egyptian History*.—For seven hundred years from 2900 to 2200 B. C., the country enjoyed great prosperity. Then foreign invaders called the shepherds, or Hyksos, obtained possession of the throne, and held it for five centuries, interfering apparently but little with the religion or details of the administration. In 1703 B. C. they were expelled, and trade, agriculture, and the arts, received a great development. Arabia, Palestine, Ethiopia, Mesopotamia, Cyprus, Crete, and part of the shore of Greece, were conquered.

The Egyptians with the help of their Phœnician subjects, from 1500 to 1300 B. C., held the naval supremacy on the Mediterranean. A Suez Canal, neither so deep nor so wide as that completed in 1869 A. D., was opened about this time, and is a signal evidence of the commercial and industrial activity of the Egyptians thirty-seven hundred years ago. The decline of the country then began in consequence partly of unsuccessful wars waged against the Assyrians and other nations of Western Asia. Egypt never recovered her military predominance; the construction of great monuments ceased; the social and political condition of the people grew worse; and, in 325 B. C., the nation was conquered by the Persians, and the political, social, and religious systems were never restored to authority, though the religion continued to exist for centuries.

SEC. 59. *Babylonia*.—There are many reasons for believing that the first country of Western Asia to reach a high state of barbarism was Babylonia, between latitudes 30° and 35°, with its capital in 32° 38', on the bank of the Euphrates, at the head of convenient naviga-

tion for sailing-vessels, and also at the lowest ferry, on the main caravan route between the Persian Gulf and Phœnicia. The city became the seat of great wealth, but our knowledge of the condition of the people in early times is very limited. For many centuries Babylon was subject to Egypt and afterward to Assyria, and it was not until about the year 600 B. C. that we get a clear view of it as the seat of the predominant military power of Western Asia; and that power lasted only three-quarters of a century. In the late glorious period of Babylon, the government was called Chaldæan, as was also the religion, which had the same title in earlier times. The creed was polytheistic and idolatrous; the worship a complex ceremonial; the priests had great power; and the people were very superstitious.

SEC. 60. *Assyria*.—About 1150 B. C., Assyria, occupying the valleys of the Euphrates and Tigris, between latitudes 35° and 39° , with its capital in $36^{\circ} 20'$, became independent of Egypt, and soon after acquired an extensive dominion in Western Asia. Five centuries and a half later, Nineveh was destroyed by the Babylonians, and the Assyrian people soon afterward disappeared as a separate nation. They were a warlike race, and held their place bravely for a long time. The government was despotic and cruel, and the religion, polytheistic and idolatrous, though the higher priests or many of them were monotheists. The ecclesiastical influence was great, and most of the kings were named after the gods. One of the chief royal titles was "vicegerent of the god Asshur." The priests were the chief custodians of the learning, which they had probably derived from Babylon, though they may have added much to its stock. Their writing was alphabetic, and was written with wedge-shaped or

cuneiform marks on clay, afterward baked. Vast numbers of inscribed bricks, tiles, and tablets, were used in buildings, and many of them are still sound and legible. They had made much progress in astronomy and arithmetic; their system of weights and measures was the best ever devised save that of the French. They invented the sundial, drew the plan of the zodiac, and divided the circle into three hundred and sixty degrees, the day into twenty-four hours, and the year into twelve months.

Polygamy and personal (not hereditary) slavery were common. The husband could divorce the wife at pleasure. Irrigation was extensively used, and the people were very industrious farmers and gardeners. They were also skillful weavers, dyers, potters, glass-makers, and bronze-smiths. The fine arts had made considerable progress among them. Some of their sculptures of brutes are very good; but their statues of men and gods are slavish copies of awkward ancient models. Engraving on hard stones for signets was carried to a high degree of excellence, and many of the signet cylinders used by men of note are still in existence.

A clay tablet tile printed in the reign of Sargon, about 700 B. C., and still preserved, says that three hundred and fifty kings had ruled over Assyria before him, implying that the nation had existed for seven thousand years.

SEC. 61. *Aryans*.—The Aryan family dwelt together in the mountainous region of Afghanistan or the district east of it, about 3000 or 4000 B. C., or perhaps still earlier. At an uncertain date various migrating parties started off, the Euraryans or Javans going to Europe, which they made their home. After their departure,

some of the Aryans, remaining in their primitive country, adopted the religion taught by Zoroaster, but others rejected it, and migrated to the southward into Hindostan, which they conquered, and thenceforward became Hindoos. Before any separation had occurred in the Aryan family, they were familiar with bronze, gold, silver, horses, neat-cattle, sheep, goats, pigs, and wagons, so that they had reached a respectable degree of barbaric development for their time.

SEC. 62. *Brahmans*.—The Hindoo Aryans, after conquering the previous occupants of the country, organized society in a manner suited to maintain their own supremacy. They divided themselves into two classes, the Brahmans, or priests, and the shatriyas, or soldiers, and their subjects into the vaisya, or peasant, and sudra, or servant, castes. This classification was declared to be made by divine sanction, and was, after a time, accepted by the whole people. These castes descended through the mother, except that, if she had a child by a man of lower rank, it became an outcast. The Brahmans were declared to be sacred, and exile was the most severe punishment that could be inflicted on them for any crime. No matter how poor the Brahman might be, the wealthiest and most powerful of an inferior caste must never pass him without making an humble obeisance. In case of poverty, a Hindoo could work at the employment of the caste below his, but never profane that of a superior caste. Persons of different castes were forbidden to eat together; any kind of association was discouraged, and it was a serious offense in a sudra to allow even his shadow to fall on a Brahman. The women were considered inferior to the men; a wife could not eat with her husband, or mention his name; and it was improper for a Brahman or

soldier of high rank to enter into general conversation with his wife in the presence of others.

SEC. 63. *Brahmanism*.—The religion recognized Brahma as the Great Deity or Creator, who had no temples, statues, or worship, but there were hundreds of other inferior deities, who were represented by idols, and were the objects of worship. The Brahmans had the exclusive right to study the sacred books, and to conduct the prayers, sacrifices, and public worship. They were also required, in theory at least, to be patterns of virtue and goodness, to spend a large part of their time in reciting the Veda, to fast frequently, and observe a multitude of tedious ceremonials. The “Laws of Menu,” one of the sacred books, says: “Let a man continually take pleasure in truth, in justice, in laudable practices, and in purity.” The Brahmans insisted that their subjects should be just and moral, while maintaining one of the most unjust and immoral systems of tyranny ever devised by cunning and unscrupulous priests.

And yet, the vaisyas, sudras, and women of Hindostan, thus oppressed and degraded, are the most devout adherents of the ancient faith, while in many districts the Brahmans generally deny, in confidential conversation, the sacred origin of the Vedas. The Hindoo women complain of the encroachments of skepticism, and lament that the men are beginning to favor the European ideas of the social relations between the sexes. The ancient superstition is dearest to those who, while they have suffered most by it, have been bred in the lowest ignorance and prejudice.

SEC. 64. *Buddhism*.—The cruel tyranny of Brahmanism at last led to an intellectual revolt. Sakyamuni, the heir to the throne of the petty kingdom of Magadha, born 543 B. C., called himself Buddha, and founded the

religion of Buddhism. He denied the exclusive or superior right of the Brahmins to the priesthood, rejected the Brahmanical scriptures and deities generally, declared that all nations are equal before God; that any man can be saved without the intercession of others, and that salvation is to be gained, not by sacrifice, incense, and the other ceremonious observances common in Brahmanical and other barbarian churches, but by the humiliation of self, the subjugation of desire and passion, and the absolute submission to the divine will. He taught that the souls of impure and bad men passed, after death, into the bodies of brutes low in the zoological scale in proportion to the vileness of the men, and that they might rise, by moral improvement, through successive births, to the condition of Buddhs, or purified souls, and then they escaped from the torture of earthly life, and passed over into Nirvana, a state of happy and eternal rest. Although the idea of deity is recognized in Buddhism, it is not made prominent; and all the pious zeal of the Buddhist is devoted not to give glory to God directly or indirectly, but to save his own soul; and Sakyamuni is honored, not because he has divine authority, or is of divine origin, but because he has shown clearly the path to salvation by self-abnegation.

SEC. 65. *Buddhist Asceticism.*—The Buddhistic morality is the most austere asceticism. This life is nothing but the preparation for eternity, and he who allows himself to become attached to the pleasures or affections of the world is heaping up an awful store of misery for himself. The desires for money, knowledge, and power, are sins of the gravest character. Conjugal love, filial and fraternal affection, patriotism, the fondness for fine clothes, and even cleanliness, are inconsistent with perfect piety in Buddhism. They smack of the world;

they imply the withdrawal of attention from the all-absorbing importance of the future life. The Buddhist saint must be a filthy, ragged beggar, an enemy, or at least a despiser of all innocent amusements, sciences, fine arts, and useful occupations, and a submissive subject for all forms of tyranny. He regards the anxiety for the accumulation of wealth, and the pride that resists oppression, as two of the most pernicious vices of human nature. Self-respect is the greatest of all sins; and its abnegation or annihilation the greatest of all merits.

Such a religion was adapted to the wants of a slavish people, and among them it first found favor. It made great virtues out of their poverty and submission, and assured them that they were nearer the true road to eternal happiness than the rich and powerful. Man is disposed to welcome theories that dignify his occupations, or ascribe merit to his ordinary actions. Each nation is proud to hear praise of its own characteristics; each class wants to exaggerate the value of its services, and increase its influence. Brahmanism insulted the poor, and they submitted to it; Buddhism flattered them, by telling them they were nearer heaven than their oppressors, and they preferred it.

Buddhism was the first religion to repudiate the necessity of priestly intercession; the first to declare all men equal before God; the first to aspire to unite all men in one church; the first to send out missionaries to distant nations; the first to acquire dominion over many nations. It owes nothing to the sword; and its teachers have, in all ages, distinctly disclaimed the ideas of persecution and conquest as aids to faith. It spread rapidly. Within three hundred years it had acquired dominion over a large part of Hindostan. It was the

established religion of the kingdom of Magadha; its representatives held large councils; missionaries were sent out to remote parts of Asia; and a number of books teaching its doctrines were published and accepted as sacred. But, as it threatened to destroy the power of the Brahmans, they rose in arms against it, and overcame it, so that it almost disappeared in Hindostan. It continued, however, to spread elsewhere; within six hundred years after the death of its founder, it was generally received in Siam, China, Ceylon, and over a considerable part of Tartary. Many signs of its influence are found in Western Asia, and it is now, in a corrupt form, the faith of about one-third of the human race.

SEC. 66. *Persia*.—The preëminence of Babylonia in Western Asia was succeeded by that of Persia, which lasted for three centuries. The ancient Persians, and the Medes who were under the same crown and were a kindred people—the two peoples were called “the Medes and Persians” as one nation—occupied modern Persia, Afghanistan, and Beloochistan, but attracted little attention out of their own country until 555 B. C., when Cyrus II. became their king. He was a great conqueror, subdued Assyria, Babylonia, and the greater part of Asia Minor, and left the richest and most powerful empire of the time. It held together for more than two centuries, until it was overthrown by Alexander. The Persians were pure Aryans; the Medes were also Aryans, but mixed with the Tartars in blood, and the Zoroastrian religion of their ancestors had been corrupted. When the Medes were dominant they persecuted the Persian priests, who retaliated when they obtained the power.

SEC. 67. *Zoroaster*.—Zoroaster, or Zorathrustra,

taught that the world was created by Ormuzd, or the Good Deity ; but Ahriman, the Evil Deity, had brought sin into the world. Mithra, the son of Ormuzd, was a divine mediator who came down to earth to save men from the punishment due to them for following Ahriman. Angels and archangels surrounded the throne of Ormuzd. It was forbidden to make any image representing Ormuzd. One of the sacred Mazdean books, speaking of man, says : "Heaven was his destiny, on condition that he should be humble of heart, that he should do the work of the law, that he should be pure in his thoughts, pure in his words, pure in his action, and that he should not invoke the evil spirits." The general morality of the "Zendavesta," the sacred book of the Zoroastrians, is far above the spirit of the age in which it was written. Truth and industry are the noblest virtues. The Persian gospel says : "He is a good man who constructs upon the earth a habitation in which he maintains fire, cattle, his wife, his children, and good flocks. He who makes the earth produce corn, and cultivates the fruits of the fields, maintains purity, and promotes the law of Ahuramazda, as much as if he offered a hundred sacrifices." Worship was offered by prayers, hymns, the continuous maintenance of the sacred fire, and offerings of the unfermented soma juice to Ahuramazda, his angels, and the heavenly bodies, especially the sun as the representative of the Deity.

An inscription made by Darius, and still in existence, serves to show something of their idea of their god. It says : "The great god Ormuzd, he gave this earth, he gave that heaven ; he gave life to mankind ; he made Darius king, as well the king of the people as the lawgiver of the people. . . . That which has

been done, all of it I have accomplished by the grace of Ormuzd. Ormuzd brought help to me, so that I accomplished the work. May Ormuzd protect from injury me, and my house, and this province! That I commit to Ormuzd; that may Ormuzd accomplish for me! O people! the law of Ormuzd—that having returned to you, let it not perish! Beware lest ye abandon the true doctrine!”

Ormuzd is thus invoked in one passage: “I invoke and celebrate the creator Ahuramazda, luminous, resplendent, most great and good, most perfect and energetic, most intelligent and beautiful, excelling in purity, the possessor of all good knowledge, the source of pleasure; who created, formed, and nourished us, the most perfect of intelligent beings.”

There were no temples, sacrifices of animals, idols, nor idolatrous practices. The soul was recognized as immortal, and there was a heaven for the good, and a hell for the bad. Priesthood was a separate occupation, but the priests had little influence compared with the same class in Hindostan, Judea, Assyria, and Egypt, in their time; their deity appears rarely in the names of their kings; and the general spirit of their political and ecclesiastical institutions is liberal for their age. They do not denounce foreigners as impure; nor seek to destroy other forms of worship. It was their general rule to spare the hereditary rulers of countries which they had conquered, and leave them as the administrators of Persian dominion, a policy indicative of much generosity, as well as of the consciousness of great power. The government, however, was very oppressive. The Persians were exempted from taxation, were the recipients of most of the honorable and profitable offices, and furnished the core of the army, while the

subject provinces, under the arbitrary rule of satraps, or viceroys, were required on occasion to supply men for war, and to pay all the taxes, and to maintain luxurious courts and large armies.

SEC. 68. *Persian Conquests.*—The Persians were the first branch of the Aryan family to make extensive conquests and to become prominent in the main current of human affairs. The Hindoos may have advanced as far, or farther, in their religion and general intellectual development, but they were far inferior as soldiers and rulers. Hindostan, Egypt, Assyria, and Babylonia, were priest-ridden states; Persia was not, and it was perhaps owing to this fact that it succeeded in conquering and maintaining an empire larger than that of any of its predecessors. The accession of Cyrus II. in 558 B. C. was the beginning of Aryan leadership and domination, which have since been uninterrupted save for an interval of two or three centuries, when the Arabs of Mesopotamia, Egypt, and Spain, could justly claim intellectual superiority over the Christians of Greece and Italy.

SEC. 69. *Main Features of Barbarism.*—We have thus glanced over the main features of the political, social, religious, and intellectual condition of the leading barbaric nations of antiquity, so far as they are known to us. Their religions were generally polytheistic, idolatrous, and ceremonious; their governments despotic, cruel, and warlike; and their social systems included caste, slavery, polygamy, and gross disregard of the rights of the multitude. Their learning was confined mainly to the priesthood, and was used with effect in giving authority to the tyrannical political and social institutions, all of which were declared to be of divine origin, and their preservation an in-

dispensable condition for the continuance of divine favor.

SEC. 70. *Semi-Civilization*.—I do not recognize the Chinese, Japanese, Phœnicians, and ancient Jews, as civilized peoples, and yet they were in some respects above the level of barbarism, and they may be put into a class of the semi-civilized.

SEC. 71. *Phœnicians*.—As early as 2000 B. C. the Phœnicians, occupying the Syrian coast of the Mediterranean, between latitudes 33° and 36°, had taken the lead of all other nations as ship-builders, sailors, and maritime traders. Although they were not sufficiently numerous to obtain extensive dominion, and were not even able to maintain their own political independence for any long period, they acquired much wealth, built large and prosperous cities, and established numerous colonies. Sidon was their metropolis till its conquest by the Philistines in 1209 B. C. and Tyre, which had long been the rival and inferior, succeeded to the place, and was the leading seaport of antiquity till 574 B. C., when it was destroyed by Nebuchadnezzar. The Syrian Melkarth, or Hercules, had for a thousand years before the overthrow of Sidon been recognized as the chief divinity of the Phœnicians, and his temple was visited every year by many thousands of pilgrims. They probably owed their early commercial development to their situation on the coast, where caravans from Hindostan, by way of the Euphrates Valley, could most conveniently reach the Mediterranean; and also to the possession of a large supply of excellent ship-timber in their mountains. Their ships visited all parts of the Mediterranean and Black Seas, and finally ventured beyond Gibraltar, going to the northward as far as the British Isles, getting pelts, amber, copper, tin, silver, gold,

from the savages, and paying for them with manufactures of glass, pottery, linen, cotton, wool, and metal, produced by nations further advanced in the arts.

The Phœnician priests were monotheists, worshipping a deity whom they called El, Jaoh, or Baal; but the people were polytheists, and usually worshiped two divinities, one male and one female, in each city. Temples were numerous, and worship was conducted by sacrifices, offerings, chants, prayers, processions, incense, and genuflexions. The temples of many of the idols were surrounded by groves in which gross debaucheries were practised at the times of religious festivals. Many of the idols were rude stones. Human sacrifices were common, especially in Carthage, where the eldest sons of noble families were burned to conciliate the gods in time of national calamity.

The Phœnician governments were usually aristocratic, the predominant political power being in the hands of several hundred nobles. Carthage had a senate of three hundred rich men, who elected two committees, one of thirty and one of ten members, to administer the civil affairs of the city; and two *suffetes*, who have been called kings, or judges, were the chief executive officers.

SEC. 72. *Carthage*.—A political quarrel among the Tyrians in 872 B. C. led to the emigration of a considerable party of prominent and wealthy citizens, who sailed away, and founded (or perhaps enlarged) Carthage in latitude 36° 55', near the northernmost point of Africa, about equidistant from Sicily and Sardinia. The harbor was excellent, the situation one of the best on the Mediterranean; and the new city soon prospered. After the fall of Tyre it became the chief centre of Phœnician enterprise. Like Sidon and Tyre, its energies were devoted mainly to commerce and manu-

factures. The Carthaginians established colonies in Sardinia, Corsica, Malta, Sicily, and Africa eastward from their city for several hundred miles along the shore, westward to the Atlantic, and southward for ten degrees on the coast of the ocean. The destruction of Tyre drove many Tyrians to Carthage, which reached the summit of its prosperity about 500 B. C., when the Carthaginians made the mistake of entering into alliance with the Persians, and attacking the Sicilian Greeks to prevent them from aiding their relatives in Hellas to resist the Asiatic invasions. The assailants suffered disastrous defeat in both cases; but Carthage would have finally overcome the Sicilian Greeks if the Romans had not interposed. She was a great city with a population of 700,000 when destroyed at the end of the third Punic War in 146 B. C.

Carthage held dominion, in her period of prosperity, over many nations, and treated all harshly, taxing them heavily, plundering them by odious monopolies, and excluding their citizens from the hope of reaching any very profitable or honorable office. The army was made up mainly of mercenaries, but was under Carthaginian generals. Although the rare military genius of Hannibal enabled him to defeat the Romans with equal numbers of his mixed mercenaries, yet as a general rule the Carthaginians were no match in the open field for the free Greeks and Italians.

SEC. 73. *Judea*.—The Jews, near neighbors of the Phoenicians, and closely related to them in blood and language, copied their alphabet and learned many of the useful arts from them. Sidon's prosperity had ceased several centuries before the Jewish monarchy was founded, and, when Solomon undertook to build his temple, he sent to Tyre for the masons who laid

the foundation, and superintended the erection of the building. During the reigns of David and Solomon, from 1055 to 975 B. C., the nation was a prominent power in Western Asia, but under Rehoboam a civil war broke out, and it ended with a separation into the two nationalities of Judea and Samaria. The latter, comprising four-fifths of the descendants of Isaac, and including the tribe of Levi, which had been set apart for the priestly office, abandoned the ancient religion, and in time disappeared, leaving no perceptible trace of its existence in the language, literature, faith, or blood, of mankind; whereas the tribes of Judah and Benjamin, which remained faithful to the legitimate dynasty and to the ancient religion, though they have had no political independence for nearly two thousand years, still maintain their separate existence and ancient faith—showing the most remarkable national vitality known to history.

From the time of David to the conquest of Jerusalem in 598 B. C., the Jews paid little regard relatively to the Mosaic law, and, of twenty monarchs from Solomon to Zedekiah inclusive, twelve worshiped the gods of the Gentiles, six were faithful to the worship of Jehovah in their personal observance, but as rulers permitted the worship of Baal and its heathenish accompaniments, and only two reigns were entirely free from idolatry, human sacrifices, and gross public debauchery. After the people had become familiar in their Babylonian captivity with the religion of Zoroaster, its monotheism, and its abhorrence of idolatry, they found the record of their ancient law, and became zealous observers of its commands. It is perhaps mainly on account of their zeal and fidelity to their ancient faith that they were enabled to escape the destruction which

swept away the Assyrians, Babylonians, Philistines, and Phœnicians, and to preserve their nationality, the best specimens of their ancient literature, and the law which served as the foundation of Christianity.

SEC. 74. *Judaism*.—Moses taught a strict national monotheism. Jehovah had given his law exclusively to Abraham and the descendants through his son Isaac. They were his favorites, and were to seek no addition to their number by naturalizing or marrying with outsiders. The faith was to run with the blood. In return for faithful worship they should have protection and blessing in this life. Their lives should be long; they should have a fertile soil and the most genial sky of Asia; the early and the late rains should secure the regularity of their crops; and they should triumph over all their enemies. There was no mention or suggestion of a future life, all the promises of reward and all the threats of punishment were to take effect on this side the grave. A complex and precise ceremonial of worship was prescribed, with sacrifices, offerings, chants, prayers, incense, genuflexions, and processions. Idolatry was prohibited, and even the making of any image of any living thing. The priesthood was hereditary, and it held much political power. Slavery and polygamy were common and legal.

SEC. 75. *China*.—China is favorably situated for the development of civilization. It has one million square miles of fertile soil, with a moist climate, between parallels 20° and 40° of north latitude. The ocean on the south and east, a desert on the north and west, and mountains on the southwest, are its natural boundaries and protections against invasion. Here has grown up the largest nationality of the earth, and it has enjoyed more peace relatively, if not absolutely, than any other

part of the temperate zone. The early history of China is lost, but there is reason to believe that the nation has existed for more than four thousand years, with the same general political and social systems, and with the same agricultural industry, which they had when European navigators first reached their shores. As far back as we can trace them they were an industrious, orderly, peaceful and polite people, with no caste, no powerful priesthood, no policy of conquest, no dominant, warlike aristocracy. The civil was always superior to the military branch of their government, and from remote times the highest honors, except those of the imperial family, have been acquired by learning. While dynasties, empires, races, languages, laws, and religion, have repeatedly been swept away in the parallel regions of Europe and Western Asia, the Chinese have remained almost without change. Though several times conquered, yet the conquerors were few in number, and were swallowed up among their subjects, so that the change scarcely went beyond the dynasty.

SEC. 76. *Chinese Arts*.—Before the Christian era, the Chinese had become skillful farmers and gardeners, potters, fishermen, spinners and weavers of cotton and silk, and manufacturers of lacquer-ware. They were the first to cultivate cotton and the mulberry-tree, to breed the silk-worm, to make porcelain, paper, and explosive powder (similar to gunpowder and composed of the same materials, but used by them mainly, or perhaps exclusively, in pyrotechny), to construct extensive navigable canals, to print from wooden blocks, to use the magnetic needle as a guide in navigation, and to inoculate children with small-pox. All these important arts they had for ages before they were common in any other part of the world, and all appear to have been

exclusively of Chinese origin. But it was their misfortune that they did not know how to make the utmost profit out of the vast resources within their reach. They carried no important branch of industry to high perfection. They took the lead of all the barbaric nations, but stopped midway in their career, and are now accepting the help of the Europeans to give them a new start in culture.

SEC. 77. *Laws*.—The laws generally are mild, and the government, being in the hands of men promoted to office for their learning, from all classes of society, seeks to advance the general welfare of the people, yet the administration of justice is very defective and the punishments are cruel. Great respect is paid to old age, and parents exercise much power over their children. The family tie is far stronger than in any part of Europe. Polygamy and personal (not hereditary) slavery are authorized by law, but are not extensively practised.

SEC. 78. *Religion*.—The learned men and high officials of China generally accept the religion of Confucius, who lived about 600 B. C. His teachings are rather moral than religious; his system has no priesthood, no church organization, no forms of worship, no future life, no personal deity; he sees no evidence of any existence beyond the limits of Nature, and confines all his energies to the present existence. Industry, peace, obedience to the government by the citizens, careful regard by officials for the rights of the people, uncomplaining acceptance by every one of the social and political positions in which he may be placed, are the chief duties taught in his writings. He would have each do to others as he would have others do to him. A noble strain of humane sympathy runs through Con-

fucianism, and it was fitted for a nation in a higher condition than China ever reached. The religion of most of the common people is Buddhism, in a form so corrupt that it is little better than a gross idolatry. Nearly all the Chinese, even the followers of Confucius, worship their ancestors.

SEC. 79. *Learning*.—Although no other nation has ever made such efforts to encourage learning, the Chinese have no men who would deserve to be called learned in our sense of the word. The government is an absolute monarchy in theory: that is, the hereditary emperor has unlimited control over the executive, legislative, and judicial departments, but he does not exercise it. The power is in the hands of officials selected from the most learned men, whose superiority in learning is determined, according to fixed rules, in numerous arduous examinations. There is no hereditary nobility in the country, nor does the law give any applicant for a diploma an advantage over another, nor is there any reason to suppose that the examinations are conducted unfairly as a general rule. But the tongue and literature are unfavorable to the progress of true learning. The language contains four hundred and fifty monosyllabic words, each of which may be spoken or sung in four different tones, and the meaning varies with the tone, making eighteen hundred different sounds, many of which are not clearly fixed parts of speech, but may be used as verbs, nouns, or adjectives, according to position in the sentence. In many cases the word has half a dozen different meanings, and, in the printed text, clefs or keys are used to indicate whether a certain thing is solid or liquid, wood or iron. In such a language no literal alphabet is possible; a lifetime is required to learn to read and

write it well, and mastery of it does not enable a man to write with much grace or point, because, for want of inflections and clearness of definitions, precision is not possible. The learned men of China must know the rules of their complex grammar, and must commit to memory maxims from the Chinese classics, which contain no information about political economy, the history of civilized nations, the fine arts, or the physical sciences. The students spend a lifetime in memorizing words without valuable ideas, and the results are that the government has never exhibited any ability, and the nation is the most remarkable example of a dense population in a stationary condition. With all their zeal for learning, they have never produced a work of high merit in architecture, sculpture, painting, poetry, history, criticism, or science; and while they had paper, type, silk-machinery, the magnetic needle, and explosive powder, long before those things were known in Europe, yet we have no account of the inventors, nor of the time or manner of their invention; and it is quite certain that since the time when European ships began to visit their coast they have added nothing worthy of notice to human knowledge.

SEC. 80. *Japan*.—The Japanese Empire, between 30° and 45° north latitude, has a population of thirty-five millions, and has not only preserved its language and nationality, without material change, for two thousand years, but, unlike any other ancient nation, has never been conquered, and has never even been engaged in any long foreign war. The Japanese people bear much resemblance to the Chinese in their industrial condition and in their religious and social systems. The government was, until lately, an absolute monarchy, with two sovereigns, one whose power was nom-

inally superior, the other the actual ruler. There was a wealthy nobility who owned nearly all the land, and to whom a large proportion of the people belonged as serfs. The national character has far more pride than that of the Chinese, and one illustration of it was the *hari-kari*, or "happy dispatch"—suicide to avoid disgrace. If a Japanese official was threatened with removal from office in a degrading manner, or, if a gentleman was subjected to any serious insult, public opinion required him to disembowel himself; and, after a suicide caused by an insult, the one who gave it, if a private individual, was, in many cases, required to use his sword also. Such a code made people very punctilious and considerate.


CHAPTER III.

PELASGIAN CIVILIZATION.

SECTION 81. *Definition.*—Civilization, the third stage of culture as distinguished from the lower conditions of savagism and barbarism, is the condition of men possessing a literal alphabet, steel edge-tools in common use, and a refined taste in literature and the fine arts. Ancient Greece and Rome in their prosperous ages, and the Aryan nations generally of the present time, are civilized.

When the leadership in culture passed over from Asia to Europe, it passed into the hands first of the Greeks and then the Latins, occupying the two peninsulas projecting into the eastern Mediterranean. The two peoples were near akin in their languages, religions, customs, and general intellectual condition, and have been classed together as Pelasgians, which will here be used for convenience, no other name including both being so well known.

SEC. 82. *Hellas.*—Mankind first emerged from barbarism in Greece, or, as the natives called it, Hellas, a ragged point of land projecting from the eastern end of Europe into the Mediterranean between 35° and 40° of north latitude. The shore-line is very long as compared with the area; the soil in the numerous small valleys is fertile; the mountains, though steep, were covered in early times with a good growth of trees



suitable for ship-building; and the climate was mild, equable, and sunny. Between Egypt and Rome, between Carthage and Phœnicia, between Sicily and Asia Minor, with the Mediterranean on three sides, the Adriatic extending six hundred miles to the northwest and the Black Sea eight hundred miles to the northeast, Hellas was situated in the midst of the most prosperous and progressive nations, about the year 600 B. C. It was also fortunate in being settled by a brave and intellectual Euraryan nationality, who had also occupied the Ægean Islands, Crete, Corcyra (Corfu), Cyprus, and considerable districts in Southern Italy, Sicily, and Asia Minor, and had established colonies at Marseilles, Cyrene in Africa, and on the shores of the Black Sea. They were evidently for a long period the leading sailors and commercial colonists of the Mediterranean. The Greeks in Italy outnumbered those in Greece proper, and therefore Southern Italy was called Magna Græcia, as in our time the term "Greater Britain" has been applied to America.

SEC. 83. *Greek Polity*.—The Greeks were divided up into a multitude of small states, governed by kings in early ages, and most of them by democracies or oligarchies in their most prosperous times. There was no powerful hereditary priesthood, no predominant ecclesiastical influence, and no caste in any of the states; most of them had no aristocracy of birth save that implied by the existence of slavery, and monogamy was established by law and custom. Freemen were generally recognized as possessing equal civil and political rights, and the dignity of human nature was recognized more fully by law and public opinion than in any barbarian country. One free man was held to be as good as another; and every one, no matter how

poor, was entitled to the treatment of a gentleman. Important political questions were decided by the people in public assemblies, and the ordinary administration was intrusted to officials elected by manhood suffrage of the freemen in the democratic cities, and by a considerable class of rich or privileged citizens in the aristocratic states. There were no kings in Hellas in her age of glory, though the royal title was preserved in Sparta. The states were small, most of them consisting only of a single city with its adjacent country. The political power all lay in the city, and no representation was recognized in the national legislative assemblies. Every freeman was a soldier, and the Greeks were from early times distinguished for the excellence of their training, their fidelity to the rules of discipline on the battle-field, their high courage supported upon noble principles of self-respect and national devotion, the enlightened genius of their military leaders, and the great superiority of their armies over the barbarians with whom they came in contact.

SEC. 84. *Mythology*.—The people of continental and peninsular Greece—exclusive of Greek Italy—though not more than five millions in number, were divided up into a dozen nationalities, which were engaged in frequent warfare with one another, and with other nations, leading at last to their exhaustion and ruin. They recognized their common origin, language, and faith, attached a high value to their civilization as contrasted with the barbarism of their neighbors, and, when threatened with conquest by the Persians, they generally united. Their religion was polytheistic and commanded the complete belief of the multitude, though in the fifth century before Christ the leading thinkers had outgrown the ancient mythology. The air, the water,

the sun, war, science, love, marriage, mechanical labor, agriculture, hunting, commerce, and wine, each had its divinity, and there were many others besides. Every city had its favorite, who was supposed to give special protection in return. Magnificent temples were erected in honor of the gods, each consecrated to one, and usually adorned with his or her statue. The ceremonies of worship were not frequent, tiresome, nor complex, and consisted mainly of processions, singing, and sacrifices, conducted in such a manner that the people regarded their occurrence as pleasant festivals. Sermons had no place in Greek worship, nor was there any precise creed in their religious belief. They had no heresy, and no inquisition into opinion, but they punished those who openly or ostentatiously denied the existence or providential government of the gods.

While the general creed was polytheistic and idolatrous, many of the more intelligent men were monotheists. They attributed all the operations of Nature to the direct action of divine power, and attempts to account for rain, eclipses, and other natural phenomena, were regarded as insulting to the gods and discreditable to the religious sentiment of the community. When at last skepticism became general and the people laughed at the oracles and at the old stories of the frequent appearance of the gods among men, the adherents of the ancient faith said that the gods had withdrawn because they were not treated with proper respect. Not a few of the skeptical office-holders who made no secret of their opinions among their intimate friends, publicly pretended to honor the mythology of their forefathers, on the ground that the people were more easily governed with the help of a state church.

SEC. 85. *Oracles*.—While every city had its temples

and its guardian divinity, all Greeks recognized the national importance of the Temple of Diana at Ephesus in Asia Minor, and of the Temple of Apollo at Delphi, in continental Greece. The Delphic oracle, in which a woman acted as prophetess, was visited by great numbers who wished to learn something of the future. In reply to their questions they received ambiguous answers, some of which appeared afterward to have a peculiar significance. Thus, when the Persians were marching to attack Athens, she was told to trust to wooden walls, and there was much discussion among the perplexed citizens about the meaning of this advice. Themistocles had much difficulty in persuading them that they must build a navy; but after they had gained the naval battle at Salamis, and still more after they had become the dominant naval power of the Mediterranean, they thought the oracular response clear enough, and the result a remarkable proof of its divine origin.

SEC. 86. *Military Training.*—In Hellas it was the duty of every freeman to serve as a soldier, in case of need; and it was assumed as a matter of course that, before reaching the age of twenty-five, he would be familiar with the tactics of some branch of the service. In most cities the wealthiest men were required to serve as horsemen; the men of moderate means as *hoplites*, or heavy-armed infantry, and the poorest as light-armed infantry, provided with swords, slings, and spears. The main reliance was on the *hoplites*, who had shields, helmets, and breastplates, for defensive armor, and javelins and swords for offense. Their hilly country was not well suited to cavalry, and they rarely used chariots in historical times on the battle-field. The Greeks understood the paramount value of dis

cipline in war, and they carried it to its highest point. While the Spartans were decidedly superior to all other Hellenes, yet the others were still further relatively in advance of any barbarian army. Trusting to the bravery, fidelity, and intelligence of one another, there was more division of labor, more combination of action, more regularity of movement, more vigor of attack, more stubbornness in defense, and always more solidity in their tactical order. The Persians, who were accounted the best soldiers of Asia, did not think of beating the Greeks except by vast superiority of numbers, and even with ten to one they never succeeded in a great battle.

SEC. 87. *Panhellenic Feeling*.—There was an international Greek league, called the Amphictyonic Council, composed of two delegates from each of twelve tribes; and representatives of other tribes, or cities, were entitled to speak, but not to vote. The main purpose of this council was to protect the Temple of Delphi from plunder, and it adopted rules to prevent the complete subjection of any Greek state by another state. In the wars with the Persians, the Macedonians, and the Romans, this council exercised little or no influence; and its main importance to us lies in the fact that it indicated the sentiment of the unity of race. The Greeks also recognized that unity by their national games, which were celebrated six times in four years. The Olympic games, held at Elis, on the southern shore of the Gulf of Corinth, first in 776 B. C., and afterward at intervals of four years, until 394 A. D., were the most important. The Pythian games were held at Delphi, once in five years. The Nemean games, held at Argolis, and the Isthmian, near Corinth, recurred every odd year. The games consisted of

gymnastic exercises, chariot-races, and horse-races; and in addition to these the Pythian games had contests in poetry, music, and the fine arts. All free Greeks could contend on equal terms; no person unless a Greek could be admitted on any terms; and, on the territory occupied by the games, a sacred peace prevailed. The prizes given at the games were honorary, such as a wreath of laurel-leaves, but many cities offered considerable pecuniary rewards, and extensive privileges to their victorious citizens, who were regarded as having given lustre to the state. The competition for the prizes was great, and months of training, and long and costly journeys were undertaken to gain them.

SEC. 88. *Athens*.—The most populous state and most formidable military power of Greece was Sparta, but Athens was the largest city, and the chief centre of intellectual activity. The Athenian government was democratic. Every freeman could speak and vote in the popular assembly which determined all important state questions. The city was divided into ten wards, and each annually elected fifty senators. The senate of five hundred took charge of the details of the administration, but their action was always subject to reversal by the popular assembly. One senator was selected by lot every day to keep the keys of the treasury and the seal of the state, and in case of a meeting of the senate in popular assembly he presided. Even the commanding generals were elected annually by the vote of all freemen, who were one-fourth of all the men in the state, three-fourths of the population being slaves, mostly Greeks. The Athenians treated their slaves in a very lenient manner, and never had any servile insurrections. The slaves were not

only allowed, but were encouraged to learn to read, and the law authorized them to prosecute their masters for severe beating. The population of the entire Athenian territory did not exceed half a million, and that of the city was probably at the time of the Persian War not more than two hundred and fifty thousand. Nearly all the freemen lived in the city, but the wealthy men had country-houses, where they spent most of the time in periods of peace, overseeing their slaves.

SEC. 89. *Attic Intelligence*. — Nearly all the free Athenians could read, and it was the policy of the constitution to cultivate the understanding of her citizens. The tutelary divinity of the city was Athene, or, as the Romans called her, Minerva, the goddess of Knowledge; and this choice of a guardian spirit, made in prehistoric and perhaps semi-barbarous times, was justified by the great intellectual development of Athens in the fifth century before Christ. In this city, popular education reached a higher degree than in any great community before the invention of printing. The language was sonorous, harmonious, rich in its range of words, precise in its meanings, flexible, susceptible of great condensation, and therefore finely adapted to oratory, poetry, wit, and music: and the Greeks brought out all its capabilities.

The Grecian cities in the islands and along the coast of Asia Minor, stimulated and perhaps protected by the Assyrian and Babylonian monarchies, seem to have been, in the eighth and ninth centuries, more enlightened than those in peninsular and continental Greece; but in the seventh century Athens was recognized as the school of Greece, and then as the school of the world, which latter position she held down almost to our own time.

The Athenians were the first to fully appreciate and carefully preserve the poems of Homer. Their democratic constitution led to the first development of oratory as a high art and enlightened statesmanship. The free institutions called out the energies of the people, gave them a devoted attachment to their country, and led them to make heroic sacrifices. Many of the leading men were equally remarkable for the nobility of their moral character and the brilliancy of their genius; and it is certain that no community ever produced within the same period so many great and admirable men in proportion to the population as Athens did in the century of her greatest prosperity. Although the Athenians were frequently engaged in war, they had no policy of conquest. Every free citizen might be required to serve as a soldier in defense of the country, and in times of danger few held back. The most eminent of their philosophers, poets, and orators, fought as common soldiers, when occasion required. But war was never considered as the only honorable profession. Commerce and mechanical industry were respected and encouraged by public opinion.

SEC. 90. *Persian Invasion*.—In 490 B. C., the military power, the statesmanship, and the public spirit of Athens were put on trial. A Persian army, numbering not less than one hundred thousand men, and, according to some accounts, six hundred thousand, crossed the Ægean Sea and landed at Marathon, in Attica, with the intention and confident expectation of subduing Greece. The Spartans promised to aid in repelling the invasion, but they were kept back by a superstition that the moon was not in the right quarter for starting. The other Greeks also failed to appear for various reasons, save the town of Plataea, which sent one thousand

men—its entire military force. Athens had ten thousand hoplites, or heavy-armed men, and these eleven thousand had to face nine times their number of troops which had conquered Egypt, Babylonia, Syria, and Asia Minor, and had been trained to confidence and victory by more than half a century of almost uninterrupted triumphs.

The smaller force had a vast superiority in its thorough military training, in the intelligence and patriotism of its soldiers, and in the genius of its generals. Miltiades, the commander, did not wait to be attacked, but, putting his entire army on the run, charged the Orientals, who, as it soon appeared, were no match in a close fight for the small but compact body of the assailants. The Greeks cut their way through the Persian masses with little loss and little difficulty, save that of casting the javelin and wielding the sword in slaughter. After a few hours, the Asiatics fled to their ships and left the shores of Greece.

SEC. 91. *Second Invasion*.—But the Persians were not satisfied with the result; they could not believe that a people so few in number, and so poor, could resist the united force of Western Asia. Ten years after the battle of Marathon, an army which, according to some accounts, numbered five million, crossed the Dardanelles, and marched into Greece, while a large fleet of Persian and Phœnician vessels coöperated with them. The Spartans now united with the Athenians to defend their country, and the other Greek states generally contributed good supplies of men. The Spartans had the command of the land-force, and the Athenians of the fleet, for the Greeks determined to meet the enemy at sea. The first battle was fought at Thermopylæ, a narrow pass near the northern border of Greece. Here

Leonidas, the Spartan general, determined to give the invader a lesson. He was in command of a considerable army and intended to stop the advance of the Persians, but they found another pass, and, as he was not strong enough to meet them in the open field, he resolved to save part of his force, and to remain with three hundred Spartans and their helots, fighting till death there. Four hundred Theban and seven hundred Thespian hoplites stood by him, and, counting the helots and all, there were four thousand men, three-fourths of them light-armed. For two days the Persians attacked them in the pass, and on the third day, when a party of the invaders assailed them in the rear, they marched out into the plain and fought, surrounded by foes, until all the Spartans, save one, were slain, and all the Thespians, and all the Thebans, save a few, who at last surrendered. The loss of the Asiatics was not known, but it was frightful, and the moral effect of such heroic sacrifice was powerful. The Spartans afterward erected a monument over their dead at Thermopylæ, with the inscription, "Stranger, tell the Lacedæmonians that we died in obedience to their laws."

The Persian army continued to advance, but the fleet was attacked by the Greeks and completely defeated at Salamis. This victory was almost as glorious for Athens as that of Marathon, and laid the foundation of her naval supremacy. The Persian army ravaged Attica, plundered Athens, which had been abandoned by most of the people, and then moved to Plataea, where they were again defeated. Out of three hundred thousand persons, only forty-three thousand escaped, according to report, so that two hundred and fifty-seven thousand must have been slain. The slaughter must, in any event, have been dreadful, a large body of the

Persians having been caught in a fortified camp, which, instead of protecting them, served as a pen in which they were massacred. The Greeks engaged in the battle numbered ninety thousand. A few days later the sailors of the Greek fleet landed at Mycale, in Asia Minor, and attacked and defeated a large Persian army. The Ionian cities in Asia Minor now threw off the Persian yoke, and all the Greeks were free. Athens, which, before the battle of Platæa, had refused the offer of a profitable peace with the despot, and honorable, too, if lending countenance to despotism be honorable, and had shown a great zeal for the welfare of her sister states, was and has ever since been justly recognized as the savior of Hellenic civilization. Time can never efface the record or diminish the obligation of the sacred and immortal debt which humanity owes to the Athenians for their generosity and heroism in these years of their sore trial.

SEC. 92. *Age of Pericles*.—Athens now entered upon a career of very rapid growth. Her mercantile marine was the largest and best in the Mediterranean. Her mechanics and merchants had no superiors. Wealth poured in upon her; but her chief preëminence lay in her architects, sculptors, historians, orators, lyric, tragic, and comic poets, critics, and philosophers. Although the fine arts had made much progress before the golden age of Athens, yet that city was the first to reach the highest excellence in many important branches, and she has the immortal credit of having produced the earliest histories, tragedies, comedies, orations, and philosophic essays, worthy of admiration in our time. She did what can never be done again: she made a great and varied literature without a teacher, a literature so comprehensive in its thought, so liberal in its spirit, and so

finely polished in its style, that many scholars maintain that no literary education deserves to be called complete unless it includes familiarity with the Greek classics.

Athens became a very beautiful and a very intellectual city; she was visited by studious men from many countries, near and remote; and the fairest fame seemed to open before her. She had enjoyed her happy prosperity for a quarter of a century, when Pericles, the greatest statesman of antiquity, became the head of her government, and gave his name to the period of her greatest glory, when Phidias, as architect and sculptor, when Sophocles and Euripides as tragedians, Herodotus and Thucydides as historians, Socrates, Anaxagoras, and Xenophon, as philosophers, and many others of imperishable fame, gave lustre to the city of Minerva.

In his oration at the funeral of the Athenians slain at Samos, in 431 B. C., Pericles spoke thus of the political and social institutions of Athens:

“We live under a constitution such as in no way to envy the laws of our neighbors—ourselves an example to others rather than mere imitators. It is called a democracy, since its permanent aim tends toward the many and not toward the few. In regard to private matters and disputes, the laws deal equally with every man. While looking to public affairs and to claims of individual influence, every man’s chance of advancement is determined, not by party favor, but by real worth, according as his reputation stands in his own department; nor does poverty or obscure station keep him back, if he really has the means of benefiting the city. And our social march is felt, not merely in regard to public affairs, but also in regard to intolerance of each other’s diversity of daily pursuits, for we are not

angry with our neighbor for what he may do to please himself, nor do we ever put on those sour looks, which, though they do no positive damage, are not the less sure to offend. Thus conducting our private social intercourse with reciprocal indulgence, we are restrained from wrong on public matters, by fear and reverence of our magistrates for the time being, and of our laws, especially such laws as are instituted for the protection of wrongful sufferers, and even such others as, though not written, are enforced by a common sense of shame. Besides this, we have provided for our minds numerous recreations from toil, partly by our customary solemnities of sacrifice and festival throughout the year, partly by the elegance of our private establishments, the daily charm of which banishes the sense of discomfort. From the magnitude of our city, the products of the whole earth are brought to us, so that our enjoyment of foreign luxuries is as much our own and assured, as those which we grow at home. In respect to training for war, we differ from the Lacedæmonians on several material points : First, we lay open our city as a common resort ; we do not exclude the alien from any lesson or any spectacle, the full view of which he may think advantageous to him, for we trust less to manœuvres and quackery than to our native bravery for warlike efficiency. Next, in regard to education, while the Lacedæmonians, even from their earliest youth, subject themselves to an irksome exercise for the attainment of courage, we with our easy habits of life are not less prepared than they to encounter all perils within the measure of our strength. The proof of this is, that the Peloponnesian confederates do not attack us one by one, but with their whole united force, while we, when we attack them at home, overpower, for the

most part, all of those who try to defend their own territory. None of our enemies have ever met and contended with our entire force, partly in consequence of our large navy, partly from our dispersion in different miscellaneous land expeditions; but when they chance to be engaged with any part of it, if victorious, they pretend to have vanquished us all; if defeated, they pretend to have been vanquished by all.

“Now, if we are willing to brave danger just as much under an indulgent system as under constant toil, and by spontaneous courage as much as under force of law, we are gainers in the end, by not vexing ourselves beforehand with sufferings to come, yet still appearing in the hour of trial not less daring than those who toil without ceasing. In other matters, too, as well as in these, our city deserves admiration, for we combine elegance of taste with simplicity of life, and we pursue knowledge without being enervated; we employ wealth not for talking and ostentation, but as a real help in the proper season. Nor is it disgraceful to any one who is poor to confess his poverty, though he may rather incur reproach for not actually keeping himself out of poverty. The magistrates who discharge public trusts fulfill their domestic duties also. The private citizen, while engaged in professional business, has competent knowledge of public affairs, for we stand alone in regarding the man who keeps aloof from these latter not as harmless but as useless. Moreover, we always hear and pronounce on public matters when discussed by our leaders, or perhaps strike out for ourselves correct reasonings about them. Far from accounting discussion an impediment to action, we complain only if we are not told what is to be done before it becomes our duty to do it; for in truth we combine, in the most remarkable

manner, these two qualities—extreme boldness in execution, with full debate beforehand, on that which we are going about ; whereas, with others, ignorance alone imparts boldness, debate introduces hesitation.

“In fine, I affirm that our city, considered as a whole, is the school-mistress of Greece. While viewed individually, we enable the same man to furnish himself out and suffice to himself in the greatest variety of ways, and with the most complete grace and refinement. This is no empty boast of the moment, but genuine reality ; and the power of the city acquired through the dispositions just indicated exists to prove it. Athens alone, of all cities, stands forth in actual trial greater than her reputation. Her enemy, when he attacks her, will not have his pride wounded by suffering defeat from feeble hands ; her subjects will not think themselves degraded, as if their obedience were paid to an unworthy superior. Having thus put forward our power, not uncertified, but backed by the most evident proofs, we shall be admired not less by posterity than by our contemporaries. Neither do we stand in need either of Homer or of any other panegyrist, whose words may for the moment please, while the truth when known would confute their intended meaning. We have compelled all land and sea to become accessible to our courage, and have planted everywhere imperishable monuments of our kindness as well as of our hostility.”

The remarkable picture of Athenian life, presented in this oration, has attracted great admiration among scholars, and it indicates a degree of social freedom such as few other nations have ever attained.

SEC. 93. *Athenian Decline*.—But the government of Athens was not strong enough to secure permanence. She offered to the Greeks an opportunity to

form a political union, fair and beneficial to all, but the petty local jealousies and hates were too potent, and as they had done before, and as they did afterward, many weaker states combined against the one strongest and dragged her down to ruin. If they had known enough to combine into one nationality, the Grecian democracy might have enjoyed the social freedom and intellectual brilliancy of Athens, with the military power equal to that of Rome, for a thousand years.

After the defeat of Xerxes, fears were entertained that the Persians would again attack Greece, and therefore a confederacy was organized, under the leadership of Athens, to maintain a powerful fleet for mutual protection. Nearly all the islands in the *Ægean* Sea and Ionian cities in Asia Minor were members, and at first contributed war-vessels, but afterward paid a certain sum annually instead to Athens, which undertook to provide the entire navy. When the Persians showed that they had no intention to assail the Greeks again, some of the allies wanted to be released from the naval tax, and several of the Peloponnesian states did their best to excite the feeling of discontent, for the purpose of weakening the military power and political influence of Athens. Sparta was envious of her, but considered her democratic institutions and her liberal treatment of her slaves dangerous to the good order of society. Many of the other Greek cities having grievances of various kinds, the Peloponnesian War broke out, in 432 B. C., and lasted twenty-eight years, ending in the conquest of Athens, after her territory had been devastated and a large number of her citizens slain. She still remained the richest and most intellectual city of Greece, but she never recovered her political influence, or her eminence in literature and art.

SEC. 94. *Lacedæmon*.—Lacedæmon, occupying the west and extending to the southern shore of the Peloponnesus, or the Grecian Peninsula, was the largest, most populous, and most warlike Hellenic state. The country was also called Sparta from the chief town, and the ruling race were the Spartans, who numbered from five to ten thousand men at various times, and were only about one in twelve of the whole population. Nearly three-fourths of the inhabitants of the country were abject slaves, or helots, and about one-fourth were periekoi, or free Lacedæmonians who had no share in the government. The helots being of Greek race and far outnumbering their masters, were always regarded with apprehension, and not without reason, for many of them were the sons and grandsons of freemen, and shared the hatred of tyranny common among the Greeks. Some of them always accompanied the Spartans as light-armed troops and servants, and by their experience in war became the more formidable at home. Insurrections were not unfrequent and were punished with frightful severity, and the ephors sometimes did not wait for an outbreak, or even a conspiracy, but sent out the young Spartans with orders to assassinate those helots supposed to be most dangerous.

SEC. 95. *Spartan Polity*.—The Spartans became famous for their hatred or contempt of philosophy, the fine arts, literary refinement, and social luxury. They regarded no occupation as honorable save that of arms; they long excluded gold and silver coin, accepting only iron, for the purpose of restricting the use of money; they left mechanical labor and commerce to the inferior castes; they forbade the use of any tools save the axe and saw in building their dwellings; they required the men to eat in public messes where the diet was coarse

and simple; they prohibited fine clothing, rhetorical speeches, and every thing that would give a distaste for military service. They were trained in arms every day; the greatest virtue with them was bravery; the greatest disgrace was cowardly action in the field.

Sparta had two royal families, each supplying a consul, or king, who held his office for life, but had little power save as commanding general in the field. Usually the crown descended to the eldest son, but the ephors could exclude him and confer the honor on another. The title of "king" was given to these contemporaneous and equal officials, but their authority was consular, not regal. Five ephors, elected annually by the people, had control of the administration, and could not be called to account for any alleged abuse of their power until after the close of their term. The senate, consisting of the consuls and the Spartans over sixty years of age, assisted the ephors as an advisory council. The general assembly, in which none save senators had the right of speech, decided all questions of great importance, including peace and war. No other Greek state retained one form of government so long without important change, or adhered so strictly for centuries to the same domestic and foreign policy. Although all Spartans had an equal vote in the general assemblies, yet, as they were only one-twelfth of the entire population, and the land descended by primogeniture, the spirit of the government was oligarchical, and the administration systematically encouraged the aristocratic form in other Grecian states, and frequently aided them with arms.

SEC. 96. *Military Spirit*.—The Spartans were far superior as soldiers to any other community. The organizer of their state had correctly understood that

the only security for national existence lay in the military power, and to that they sacrificed every thing else. They not only gained their purpose, but they succeeded beyond all example elsewhere. Their method, though entirely original, was based on the soundest principles. Such a general spirit of soldierly devotion has never been approached elsewhere. The opinion that a man must always be ready to die for his country obtained among the Spartans an influence never equaled in any other community. When Leonidas resolved to die at Thermopylæ with his three hundred Spartans, his conduct was in accordance with the fixed rules and customs of his countrymen, and they were justly proud of such a splendid proof of their national spirit of heroic self-sacrifice. The Thebans and Thespians who staid by him and shared his fate were equally heroic, but their devotion was personal, not national. They had caught the feeling of their associates from Lacedæmon. The one Spartan survivor of Thermopylæ, Aristodemus, who might well have been pardoned for escaping alive, met such a storm of ignominy when he returned to Sparta that life became intolerable, but, instead of escaping like a coward to some other Greek state, he sought and found death in the Spartan ranks fighting against the Persians. Even in republican Rome, which ranks next to Sparta in the military spirit, the sole survivor of such a battle as that of Thermopylæ would have been received with the highest honors, or, if ill-treated, would have gone over to the enemy; but Aristodemus suffered his disgrace till he had an opportunity to die in battle for his country. Without him Thermopylæ would lack half its sublime lustre. His conduct is the companion-piece to that of Leonidas: both must be considered before we can get



a fair idea of the unparalleled, the almost superhuman, military virtue of Sparta. Her cowards were equal to the heroes of other states.

The soldier was forbidden to throw away his shield or sword under any circumstances, and, if he was honorably slain in battle, he was carried on his shield to the burial-place at Sparta if circumstances permitted. A Spartan mother, giving his shield to her son when about to start off for war, said to him, "Return with it or upon it;" and she meant it. Better death than cowardice. Another mother, when her young son complained that his sword was too short, told him to "add a step to it." Close up, and let courage and skill decide the deadly contest.

After the disastrous battle of Leuctra, in which the Spartans had been conquered, in a manner most honorable to their own courage and discipline, by the superior genius and the novel tactics of Epaminondas, many of the vanquished, rather than foolishly waste their lives, violated the military rules, but, when they returned to their homes, the women would accept no explanations. The wives and mothers of those who had died on the field acted as if they were celebrating a triumph, while the others lamented their humiliation, and were ashamed to show themselves on the streets. A Spartan mother met a messenger from the war and asked him how the battle went. He said: "I have sad news for you; your son was slain." "Fool," she replied, "I want news of the battle!" Such a speech by a mother in any other country would be, or would have been, regarded as insincere, or as an indication of an exceptional character, but not in Sparta.

An army of men, bred by such women and returning to their arms after a campaign, could not fail to do won-



ders. The Greek battles were almost invariably decided by the hoplites in close contest ; and as the Spartans were superior to all others in discipline, and could usually slay man for man at least, their enemies disliked very much to attack them, unless with some decided advantage of numbers and position ; and, if an attack was made and was not successful at first, the assailants would frequently retire and leave the Spartans in possession of the field. Their rule, that they must never run fast for fear of getting into disorder, often prevented them from destroying the armies which fled before them. The Spartans were seldom defeated ; and, indeed, it may be said that they never were by an equal force until they were overthrown by the Thebans, forty years after the close of the Peloponnesian War.

The Spartans were frequently engaged in war, and, however successful, they were continually losing men, and thus they became gradually weaker, and their power was finally broken when the victorious Thebans, in 364 B. C., liberated a large number of the helots, and reëstablished the conquered Messenia as an independent state. Property, under the influence of the law of primogeniture, had concentrated in the hands of a few, and the people did not feel like sacrificing themselves in defense of the oligarchs.

SEC. 97. *Generalship*.—The Spartans were not stupid soldiers, fit only for slaughter. Whatever was necessary to success in the field they understood. The individual gymnastic training of the men was thorough. In long marches, in the carrying of heavy burdens, or even in rapid running, when occasion required, they excelled. Their military exercise was perfect ; every man knew his place in the ranks, and knew what it would be if this or that man, or number of men, in his

company or squad, were killed. Even defeat led to no confusion; they might retreat, and on one occasion, to the astonishment of Greece, three hundred surrendered to the Athenians; but a panic before an enemy, an abandonment of the sword or shield, or a disorderly flight, was unknown in the history of Sparta. Most of the generals were skillful tacticians, some of them were able strategists, and as a class the Spartan military leaders may, in proportion to their number, claim an equality, if not a superiority, in the highest qualities of generalship with those of any other nation; and it was to this superiority rather than to that of numbers that their country owed her triumph over the greater wealth, the superior diplomatic influence, and average intelligence of Athens in the Peloponnesian War. Strategic talent does not develop well until the military leaders learn to place confidence in the courage, steadfastness, and discipline of their soldiers, and in the intelligence of their subordinate officers; and never was such confidence better deserved than by the Spartans.

SEC. 98. *No Extensive Dominion.*—The Spartan military system was devised for defense, not conquest. The formidable military organization, the eminent military virtue, the strongly-fortified cities, the powerful sentiment of local independence, and the comparative poverty of the Grecian states, suggested no field for profitable conquest to the founders of the Spartan institutions. They made no arrangement for the admission of conquered peoples to their citizenship, or for the extension of their political and military system to subject states. It soon became evident that the more extensive their conquests, the weaker they became, and therefore it was the main object of their foreign policy to gain allies, and to do this they assisted the oligarchs



or aristocrats in overthrowing the democratic governments. The general sentiments of Hellenism favored the more popular institutions, and its strength gradually exhausted Sparta, and finally led to her ruin. If her founders had been liberal to the subject Lacedæmonians and helots, and had provided for the extension of their institutions, Sparta might have become the first mistress of the known world, but that honor was reserved for Rome.

SEC. 99. *Thebes*.—The Thebans were never prominent in literature or art, nor did they become formidable in arms until after the Peloponnesian War. The Spartans having occupied their citadel to maintain an oligarchical government, the Thebans expelled the aliens, established a democratic government, and placed at the head of it Pelopidas and Epaminondas, two young men of remarkable genius and moral worth. The former had led the movement for the expulsion of the Spartans; the latter was the greater orator and general. They were necessarily rivals of each other in the public favor; but both seemed to be above any feeling of selfishness, and they worked together for their country with an affection that remains to our times unparalleled in men occupying such positions. The Spartans undertook to reestablish the oligarchy, but Athens sided with Thebes, and defeated the enemy at sea, while Epaminondas gradually trained his troops until they became fit to meet the enemy in the open field, and then, by the help of novel strategy, he defeated the Spartans in the great battles of Leuctra and Mantinea.

SEC. 100. *Macedon*.—While Pelopidas and Epaminondas were in power, a young Macedonian prince, named Philip, was kept for several years at Thebes as

hostage for the fidelity of relatives, whose territory had been conquered by the Thebans. Philip studied the tactics of Epaminondas, and, having returned to his native country, began to discipline his barbaric subjects. By money and arms, cunning, courage, and usurpation, he soon became a formidable king; and Macedon, scarcely heard of before his time, suddenly became the most powerful Grecian state. In 341 B. C., he defeated the forces of Athens and Thebes at Cheronea, the Spartans being either too blind or too selfish to join them in the defense of their ancient independence. Soon afterward all the cities of Greece submitted to him, and were thus politically united for the first time in their history.

Philip invented the Macedonian phalanx, a new tactical organization: the chief weapon was a spear, twenty-one feet long, and the rank was sixteen men deep, every man's spear reaching to the front. The phalanx was probably designed mainly for use in the conquest of Asia, being specially adapted to service in open plains, and against cavalry; but it was inferior to the Roman legion, armed with sword and javelin, on hills, where the company could not readily face about. When Pyrrhus invaded Italy he was at first victorious, because the Romans, with stupid valor, rushed on the wall of spears; but they soon learned that by taking the phalanx in the flank they had it at their mercy.

Alexander, Philip's son, successor, and superior in genius and ambition, started, when only twenty-two years of age, with an army of thirty-five thousand Greeks, including twelve thousand Macedonians, who were now the best troops to invade Asia. In three great battles he destroyed the military power of Persia, and in three years he was master of Asia Minor, Pales-

tine, Mesopotamia, Persia proper, Egypt, and of every country supposed to be worth the trouble of conquest. He reigned eight years after the Persians submitted, and made his capital at Babylon. After his death, his empire broke up into numerous monarchies, with Greek generals for kings, who adhered generally to the Greek character, and to the use of their mother-tongue, which became the common language of literature and commerce from the Euphrates to Sicily, and from the Crimea to the head of the Nile Delta.

SEC. 101. *Philosophy*.—Philosophers were numerous in Hellas, and many of them were widely celebrated for ability, although their influence on culture was not great. Socrates, Plato, and Aristotle, were particularly distinguished among them for the recognition given to their genius, and yet we are unable to perceive that they contributed to change materially the current of life. The last left a deeper mark in history than the others, but it was as a scientist, not as a philosopher. Before their time Hellas was as free, as eminent in literature and art, and as prosperous socially, as ever afterward. The overthrow of the political and theological systems of Greece, and the domination of strange races and strange creeds, reduced their philosophy to obscurity for a long time, and some of their most important battles had to be fought over again before modern civilization could get its start.

Socrates was one of the most admirable characters in history. His philosophy as recorded by Plato and Xenophon—for he wrote nothing—consists of three main principles: first, it is useless and wicked to undertake to investigate Nature; second, no proposition, in mental, social, moral, or political philosophy, is to be accepted without adequate proof after careful consid-

eration of all objections; and, third, a man cannot discharge his duties as a citizen with credit to himself until he requires such proof, and studies his social, political, and moral duties. He supported these doctrines by arguments presented with much dialectical skill.

Plato taught that intuitive reason is the chief guide in philosophy; that, if we could clearly read what is in our own souls, we should find there a correct record of every thing proper to be known; that our souls are full of ideas, and outward objects are vague and inaccurate representations of them; that the senses delude us; that the true world lies within us; that the investigation of external Nature is useless; that the soul is immortal, but after death will not preserve its separate existence; that one beneficent Deity rules the universe; that he is triune in nature; and that love, or considerate kindness, is his chief attribute. His ideas were set forth in books written with an eloquent style, and made impressive not only by their eloquence but also by their decided literary superiority over all other ancient books on philosophy, by their interesting record of the life and opinions of Socrates, and by the accordance of his doctrines of the Trinity and the divine love with those of Christianity.

But Plato, like many other celebrated philosophers, was to a great extent a rhetorician, and had not more than his share of common-sense. He proposed to reconstruct society, and he went to Sicily to induce the despot Dionysius to adopt his plan, including the community of property and women, the management of the government by a few for the general good, leaving no discretion or freedom of action to the individual (men being regarded not as citizens, but as slaves of

the state), the banishment of painters and musicians, and the prohibition of many of the common amusements. Philosophy is the application of well-informed common-sense to the highest ethical, political, social, and religious duties of life, according to enlightened general principles; and yet Plato, who has been reported to be the greatest of all philosophers, has been generally condemned for the ignorance and folly shown in his supposition that his plan of social reform could be carried into effect in his time.

The doctrines of most of the Grecian philosophers are known to us only from the brief and perhaps incorrect accounts written by others, and, as reported, they contain little instruction for their age. Pythagoras taught that number is the first principle of existence, that the highest truths must not be communicated to the multitude, that souls transmigrate, and that the sun is the centre of the universe. Pyrrho could not find any secure test of truth, and said nothing could be asserted with certainty, and then doubted whether he had made such an assertion. Xenophanes of Elea denounced polytheism and its gross myths, and taught monotheism, and the duty of teaching the truth to all classes. Zeno, the founder of the Stoical school, was chiefly noted as a moralist. He said pain was transitory and not an evil, and man should submit to it without complaining. Epicurus, on the other hand, considered pain the great evil, and pleasure as the great good of life. Enjoyment was for him the end of philosophy; the gods and a future existence were mere delusions. Although Epicureanism has been used to indicate a selfish and gross mode of life, based on desire for immediate rather than long-continued pleasure, without regard to high self-respect or considera-

tion for others, yet this is the representation of its enemies. Epicurus was a man of high character, and the moral rules of his life were much like those of the utilitarians of the present time.

One of the most common ideas in Grecian philosophy was the uncertainty of knowledge, and the impossibility of finding a standard of faith that should be universally accepted. Diversity of opinion weighed upon the Greeks much more heavily than upon us, to whom the sciences have opened a vast domain of positive knowledge. They were in despair because they wanted to explain existence, and yet, whenever any one offered a theory, somebody could pick it to pieces. Socrates claimed that the great advantage of a philosopher over a savage was that the latter supposed he knew much, while the former knew his own ignorance. The Eleatic philosophers said that "thought and its object are one;" the only existence was in the idea. Protagoras held that "man is the measure of all things;" and Aristotle, that matter is incognizable in itself. Pyrrho, however, carried doubting further, expressed it more comprehensively, or taught it more systematically, than anybody else, and one of its synonyms is Pyrrhonism. Scholars of the present day amuse themselves occasionally with the consideration of the fact that the mind takes direct cognizance only of the idea; but this idealism, which is now a plaything, was among the philosophers of ancient Greece a source of continuous disputation and worry.

Grecian philosophy, with all its defects, held its dominion over scholars for two thousand years. Platonism is in favor now with many scholars who have not learned to appreciate the value of science, long to get away from influences which appear to them too

materialistic, and delight in the literary merit and generous spirit of Platonic writings. Stoicism and Epicureanism divided the educated people into two classes. In so far as their age permitted, the Greek philosophers carried their teachings to perfection. No follower, placing himself in the stand-point of either Socrates, Plato, Aristotle, Zeno, Epicurus, or Pyrrho, has been able to give us a better or more complete system.

SEC. 102. *Science*.—Aristotle was a pupil of Plato, but not a follower. He denounced the philosophy of intuitive reason, saw the importance of the study of Nature, said that general principles must be reached by induction from special facts, and studied out the technical rules of logic, etc. He collected a large amount of information about animals, and he established an investigating spirit which led to important results. As the favorite of Alexander, he was the head of a scientific commission which accompanied the Macedonian army in the conquest of Asia, and, after the city of Alexandria had been built up, it became the chief centre of physical investigation according to Aristotelian principles. It is said that fourteen thousand students collected there. Anatomy, astronomy, and mathematics, were cultivated with great success. The city had a dissecting-room, a botanical garden, a menagerie of wild animals, an observatory with quadrants, astrolabes, and special instruments for determining equinoxes and solstices, and a library of seven hundred thousand volumes. It was here that Euclid wrote his book on geometry, still in use in our schools.

Anaxagoras, who died in 428 B. C., had explained the phases of the moon and the causes of eclipses, but astronomy made little progress until after the establishment of the schools of Alexandria. Before the

middle of the third century B. C., the globular form of the earth, latitude, the position of the poles, the equator, the equinoctial points, and the solstices, were familiar to the Alexandrian scholars. Eratosthenes, born 276 B. C., undertook to calculate the size of the earth by measuring the distance between two towns in Egypt on the same meridian, and then measuring the difference of their latitudes. Hipparchus, born about 200 B. C., discovered the precession of the equinoxes, and made a catalogue of the stars. Ptolemy, born about 100 A. D., discovered the moon's evection; calculated, though erroneously, the distance of the sun and moon from the earth; and published the "*Syntaxis*," which was the chief text-book of astronomy till the time of Galileo.

Archimedes, born in Syracuse, 287 B. C., was eminent as a geometrician and mechanic. He discovered the principle of the lever, the ratio between the circumference and diameter of a circle, and the method of ascertaining specific gravity; and he invented the endless screw, the screw-pump, burning or concave mirrors, and catapults for throwing large stones. Greeks whose names are unknown to us invented the sundial, perspective drawing, the suction-pump, the water-wheel as a source of mechanical power, and mills for grinding flour by water or horse power. The water-wheel and grist-mill were destined to obtain great importance in modern times, but they were applied on only a small scale in antiquity, and did not exert much influence on culture until after Pelasgian civilization had been swept away by the flood of Teutonic barbarism.

SEC. 103. *Rome*.—Rome, in latitude $41^{\circ} 54'$, founded, according to tradition, in 752 B. C., became, after the downfall of Greece, the chief centre of civilization.

The people were divided into three hereditary classes, the patricians, plebeians, and slaves. The patricians owned nearly all the land, filled all the civil, religious, and military offices, were recognized by the government as the "people," or *populus*, and had extensive access to the courts. They could not engage in mechanical trade or shopkeeping, but might work on their farms; and, as these were, in many cases, very small, they were often compelled to do much hard work to gain a living. The plebeians were shopkeepers, mechanics, and laborers; and, when they wished to appear in court, had to become the clients of patrician patrons. The slaves were few in early times. The government was called "the senate and people of Rome."

The chief political authority lay, theoretically, in the *populus*, people, or majority of freemen. They elected annually, by manhood suffrage, two consuls, who were the chief civil officers in peace, and were the commanding generals in war. The *populus*, in their centuriate assemblies, or district organizations, could also refuse their consent to the acts of the senate, and thus defeat them, and, in the later ages of the republic, could legislate directly. Practically, however, the power of the government was in the hands of the senators, or rich patricians. The assemblies could not amend the acts of the senate, nor even discuss them; and as there were one hundred and ninety-three "centuries" (each of which had to vote separately), and a majority of them were composed of men who had property then worth at least sixteen hundred dollars (which was then relatively as much as fifty thousand dollars now in the United States), the poorer citizens not only could not work together effectively, but they were powerless whenever the richest class was unanimous.

SEC. 104. *Senate*.—The senate consisted of three hundred patricians, generally men of mature years, who, in the early years of the republic, were appointed by the consuls and afterward by the censors. All held their office for life. The appointment was generally given to men distinguished for wealth, ability, or long and creditable public service. As the consul held office for only one year, he would not hope to get control of the senate, and as he would, in the ordinary course of events, become a senator himself, he had strong motives to select, as his appointees, men who would do credit to his judgment, add to the influence of his class, and be agreeable associates.

The senate included a large part of the talent, the statesmanship, the military experience, the family influence, and the wealth of the state. A greater proportion of the men, fit to be intrusted with public affairs, was collected in the Roman Senate than in any other governing body ; and it is, perhaps, not too much to say that its government was the most remarkable success of its kind the world has ever seen. Its policy was that best adapted to secure the establishment of a great empire ; and it was adhered to with wonderful perseverance and tenacity in the midst of the most trying adversities. Every question of peace, every danger in war, was understood by the senate, which, notwithstanding the ability of many of the Roman generals, was always regarded by the people, till the republic was overthrown, as superior in wisdom and policy to any individual. It never fell under the control of one man, never vacillated in its counsels, never despaired of the republic, even when Hannibal came within sight of the capital ; and, with, perhaps, one exception, never made a treaty with a defiant enemy.

SEC. 105. *Conquest.*—The government was framed for conquest, and was successful so long as the republic stood. In their long career, the Romans were repeatedly defeated, and more than once on the verge of destruction, and yet they never lost territory for any long period. They acknowledged no superiority, gave up nothing that had once been acquired, and, no matter how severely beaten, persisted in fighting, or, at least, would make no peace after a defeat. Their policy of striking down the arrogant and sparing the submissive carried them through. The Gauls burned their city in 390 B. C.; the Samnites, in 321, captured an army of forty thousand Romans and magnanimously spared them; Pyrrhus, with a Greek army, invaded Italy in 279, and gained a complete victory over the best army that Rome could send into the field; Hannibal's triumphs are among the greatest military achievements on record; but it was not until more than one thousand years after the foundation of the city, nor until the rise of the Teutonic family, which was destined to achieve conquests far greater than those of Rome, that she fell at last.

SEC. 106. *War.*—The site of Rome was established in a little collection of hills susceptible of being converted into a formidable stronghold. Mars was the chief deity of the city; courage was the highest virtue; war was the most honorable career; and, at first, none but a patrician could be a hoplite, or heavy-armed soldier. All patricians were required to serve in the army as common soldiers, if not elected to office; and the commander-in-chief of one year served as a subordinate, or perhaps as a private soldier, afterward, and not unfrequently was distinguished for his excellence as a legionary. After Rome had become mistress

of the world, Marcus Servilius, an ex-consul, boasted that he had slain twenty-three alien enemies in single combat.

In their wars it became necessary to draft a large number of plebeians into the army, and then they demanded and obtained political and civil privileges. The concessions met with bitter opposition, and were made slowly, beginning in 471 B. C., and, after the expiration of more than one hundred years, they at last were placed on a complete legal equality, with the right to enter the senate, to become consuls, and to intermarry with the patricians.

SEC. 107. *Punic Wars*.—Having subdued peninsular Italy, in 264 B. C., at the request of the Greek people of Sicily, the Romans undertook to protect them against Carthaginian aggression, and thus began one of the most remarkable military struggles of history. It was a contest between the leading Semitic and the leading Euraryan nations for mastery, in the basin of the Mediterranean, the most precious region of the earth. After twenty-four years of warfare, with varying fortunes, Rome was victorious, and Carthage relinquished Sicily, and paid thirty-two hundred talents indemnity, equivalent to a hundred million dollars now in the United States. An interval of twenty-two years of peace for Carthage, but of continuous hostilities between Rome and minor foes, was followed by the second Punic War, which lasted eighteen years. Hannibal, the Carthaginian general, started from Spain with an army composed of Spaniards, Gauls, and Numidians, crossed the Alps, and for seventeen years ravaged Italy. In his first year he defeated the Romans at Thrasymene, and the next year at Cannæ, two of the greatest pitched battles on record. In the latter, with fifty thousand

men in his own army, he slew seventy thousand out of eighty-six thousand Romans. He advanced to the walls of Rome, but found them too strong to assault, and then marched through the peninsula, trying to induce the different provinces to join him against the city. For twelve years the Romans, though having more men than he, were so much afraid of his superior military genius, that they did not dare to meet him in the open field, but they sent an army to Africa and reduced Carthage to such straits that Hannibal was compelled to go to her assistance. He could not save her, and in 201 she surrendered, gave up her colonies in Spain and Africa, and her navy, destroyed her fortifications, and promised to make no alliance, and wage no war, except with the previous consent of the conqueror. Even after this long war and complete humiliation, she had a larger population, greater wealth, and a far more extensive commerce than Rome; but the third Punic War, beginning in 149 and ending in 147 B. C., closed with her entire destruction. Of seven hundred thousand inhabitants, all save forty thousand perished by the sword and famine, her houses were leveled with the ground, and her site condemned to perpetual desolation.

Between the second and third Punic Wars, Asia Minor, Macedonia, Illyria, Greece, and Egypt, became Roman provinces; the most remote and rugged parts of Spain submitted in 133, and France and Britain about 50 B. C., at which time the conquests ceased; for, though some additions were made to the territory, they were too slight to deserve notice here. Wars were in continual progress, however, to suppress revolts (which were very frequent among the slaves and oppressed provincials), and to resist the invasions of Celts, Teutons,

Greece. The divinities, the general features of worship, and the social and political position of the priesthood, were the same. Instead of applying to the Delphic oracle for their authoritative fortune-telling they had augurs, or soothsayers, who ascertained whether the signs were favorable for undertaking enterprises by inspecting the entrails of birds.

SEC. 110. *Political Corruption*.—The conquest of Sicily, Spain, Greece, Egypt, Asia Minor, and France, poured immense wealth into Rome and corrupted it politically and socially. "The senate and people of Rome" lost their control of the government. The rich provinces were placed in charge of military governors, or proconsuls, who, being subject to no proper supervision or check, were guilty of the grossest corruption and the most cruel plunder. The wealth thus acquired was used to establish principalities filled with slaves, crowding the poor citizens away from the finest valleys of Italy, and driving them into the cities, where they were fed with grain imported from Sicily and Egypt by the state, and distributed at far less than cost, and sometimes without charge. This pauper or semi-pauper population was especially large in the capital, and was a fit instrument for political crime. The provinces were compelled to support Italy, and yet the armies were no longer made up of respectable Roman or Latin citizens, land-owners, and heads of families, familiar with the history and faithful to the traditions of the republic, but heterogeneous hirelings with no home save the camp, no occupation save arms, and no allegiance save that of the leader who would give them the most spoil. The hereditary nobility had been greatly weakened when the prohibition of intermarriage between patricians and plebeians was re-

wars in which he was required to risk his life. The gross injustice of allowing a few rich men to take the bulk of the public domain, while the poorer class were clamoring for an opportunity to support themselves comfortably by their labor, led to the agrarian agitations that occurred at intervals for nearly four centuries. The leading advocates of popular rights, beginning with Spurius Cassius, in 485 B. C., and ending with Caius Gracchus, in 121 B. C., were all murdered by the aristocratic party, and the poor men got a very small share of the conquered land.

The plunder increased as the conquests extended. In early times habits were simple, the wealth of every man was known, and the conquered people were few, akin in blood to the Romans, near at hand, and able to complain of abuses in the Latin tongue. Later the conquerors, or proconsuls in charge of distant, populous, and wealthy provinces, whose people were considered unfit for citizenship in Rome, and were therefore unable to find sympathy there when oppressed, levied taxes without any proper check, and thus collected immense wealth for themselves and friends.

As the territory of Rome extended, and larger armies were required, the Latins, occupying a region fifty miles long and fifteen wide, and afterward other nations akin to the Latins and adjoining them to the eastward and southward, were required to serve in the army, and they demanded in return equal rights of citizenship and of profit in the conquests with the Romans, who refused at first, but were gradually compelled by civil war to make concessions, and in 86 B. C. nearly all the men of peninsular Italy were citizens.

SEC. 109. *Religion*.—The religion of Rome bore a close resemblance in its general features to that of

Greece. The divinities, the general features of worship, and the social and political position of the priesthood, were the same. Instead of applying to the Delphic oracle for their authoritative fortune-telling they had augurs, or soothsayers, who ascertained whether the signs were favorable for undertaking enterprises by inspecting the entrails of birds.

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pealed, but, on account of the greater wealth of the rich and the greater poverty of the poor, the social condition of the state was much worse than when the plebeians were not recognized as citizens.

SEC. 111. *Civil Wars*.—The slave insurrections were numerous, and some of them very formidable; and in 72 B. C. the capital was in danger of being taken by Spartacus, a gladiator, who, at the head of seventy thousand men, many of them condemned, like himself, to be slaughtered for a Roman holiday, defeated several armies and defied the consuls for two years. The civil wars between the rival generals, in which it became evident that the senate had lost its power as the controlling political influence, began in 86, when Marius massacred a large number of influential men opposed to him. Four years later he was defeated before the gates of the capital with a loss of eighty thousand men by Sylla, who proscribed five thousand of the most influential men of the Marian party, including forty senators, and sixteen hundred knights or rich men; offered a reward of two thousand dollars—equivalent in value to ten times as much in our time—for the head of each, even if slain without trial, by any assassin; confiscated their estates; and made, or compelled the senate to make, certain changes in the constitution.

A period of thirty-five years of peace was followed by the wars between Cæsar and Pompey, between Cæsar and the republicans, and between Octavius and Antonius, lasting, with intervals, for sixteen years. The destruction of the heads of the ancient families in battle and by proscription was fearful; and, when Octavius established the imperial government, the senate had become a mere shadow of its former

character, and the materials for the maintenance of a republic had been buried in blood.

SEC. 112. *The Empire*.—Under the empire the government of the provinces was better than it had been under the republic, and the city of Rome reaped the benefit of her success. Augustus, who reigned forty-five years, boasted that having found the city brick he left it marble. A large part of it was rebuilt and beautified in his time, and within the next two centuries many other great improvements were made. It was supplied with water by nineteen aqueducts, sixteen free (or nearly free) bathing establishments, with accommodations for eighteen thousand persons at once, four hundred temples, twelve theatres, and as many amphitheatres, of which last one had room for forty thousand persons. But, while the provinces were not subjected to the frightful rapacity of republican proconsuls, nor the capital to the proscriptions of rival generals, the empire was evidently losing its strength. The population and trade were decreasing; the large estates and slaves were driving the poor citizens out of Italian agriculture; the government became more despotic as the senate and public opinion became weaker, and the army less Roman and more formidable. From 14 B. C., when Augustus died, till the death of Domitian, in 96 A. D., the emperors were mostly base tyrants, and then came Nerva, Trajan, Hadrian, Antoninus Pius, and Marcus Aurelius, the most remarkable succession of good and great monarchs on record. Of the last two, Gibbon says, "Their united reigns are possibly the only period of history in which the happiness of a great people was the sole object of government;" and again he says, "If a man were called upon to fix a period in the history of the world during which the con-

dition of the human race was most happy and prosperous, he would, without hesitation, name that which elapsed from the death of Domitian till the accession of Commodus."

SEC. 113. *The Decline.*—From the death of Marcus Aurelius the decline of the empire was rapid. The power fell into the hands of the prætorian guard, established at the capital; and, out of a score of emperors, only two died in peaceful possession of the throne, most of them having been murdered. In the time of Augustus, Germans were enlisted in the armies, and their numbers increased as time advanced, until an excellent knowledge of the art of war had been carried to their native country by discharged soldiers or deserters. They used their skill to organize inroads into the Roman territory, and soon became so formidable that their power was one of the considerations in favor of a transfer of the capital, in 304, from Rome to Byzantium, which was now named Constantinople. Gaul was ravaged frequently after 260, and in 410, after that country and Spain had fallen completely into the power of the Teutons, they pillaged Rome and overran Italy; and at last, about 450, barbarian monarchs reigned throughout those provinces in which the people generally used the Latin tongue exclusively, or in preference to the Greek. We are told that before the Teutonic conquest there were twelve hundred cities in Gaul, eleven hundred and ninety-seven in Italy, three hundred and sixty in Spain, three hundred in Africa, and five hundred in Western Asia.

SEC. 114. *Permanent Influence.*—Other governments have lasted as long, but only when protected by an isolated position like that of Venice and Egypt, and no other was ever relatively so rich and powerful. It is

a common expression that Alexander conquered the known world ; but Sicily, Southern Italy, Rome, and Carthage, all considerable states, did not belong to his empire, which, besides, fell to pieces as soon as he died. The Romans, on the other hand, actually reigned over all the countries known to them as possessing any wealth, and their conquests were durable ; and, although Italy was conquered, in the fifth century after Christ, by the barbarians, the imperial government at Constantinople, the legitimate and direct successor of the Roman Empire, continued to exist till the fifteenth. The Romans began their career, not with a large population and a strong feeling of nationality, like those which most of the nations of modern Europe had one thousand years ago, but with a petty territory round which a man could walk in a day. Starting from this insignificant basis, with warlike nations outnumbering themselves, to the north, south, and east of them, they subdued every thing from the Euphrates to the Atlantic, fastened themselves over a large part of Europe so firmly that before the Teutonic conquest their language was in general use throughout their own peninsula, Sicily, Sardinia, Gaul, Spain, Illyria, the valley of the Danube, part of the valley of the Rhine, and Northern Africa ; and now, after a lapse of fourteen centuries, ninety million people, in France, Spain, Portugal, Italy, Roumania, Switzerland, and Belgium, are classed as belonging to the Latin race, exclusive of twenty million in the New World.

SEC. 115. *Literature and Art.*—With the immense tribute from all Southern and Central Europe, Western Asia, and Northern Africa ; with the concentration of a considerable part of the wealth of the known world, and the accumulation of a million people in the city ;

with the transfer of many of the most notable works of Greek art ; with the frequent visits of scholars, officials, and wealthy men from all the provinces on business or pleasure, making the metropolis an intellectual centre—with all these favorable influences Rome never became very eminent in any branch of art or literature. Greece had reached such excellence in many departments that extraordinary ability would have been required to surpass her ; but, even with the help of her teaching, Rome remained far behind. Cicero was decidedly inferior to Demosthenes, Virgil to Homer, and Seneca to Socrates. No Roman architect or sculptor deserves to be named as a rival to Phidias, no tragedian to Sophocles. As an historian Tacitus is the equal of Thucydides, and as a lyric poet Horace is fully up to the standard of Greek excellence. Among the Roman statesmen we find many men of great ability, but none who had such a combination of admirable character, with eminent ability and many-sided culture, as Pericles.

SEC. 116. *Amusements*.—The Roman people were never educated like the Athenians, nor did they, even in the best or most prosperous days of the republic, rise to be fit for any thing save fighting and farming. The highest praise that could truly be given to them was that they were admirable soldiers, not without magnanimity, but capable of great cruelty, and lacking in delicacy of feeling. The history of Rome is a record of bloodshed, and in a thousand years not more than ten were spent without war. The favorite amusement in the metropolis was not tragedy or comedy, as in Athens, but the gladiatorial shows, which were established 230 B. C., and increased in frequency and magnitude with the growth and wealth of the city. Vast amphitheatres, made to furnish seats to twenty thousand or

even to a hundred thousand spectators at once, were provided, and a free entertainment of slaughter was given nearly every week, sometimes with a thousand combatants and several hundred victims in a day. These shows were the delight of the populace, and were attended by all classes, women and children as well as men, priests and vestal virgins, rich and poor, consuls, emperors, and censors.

As the deadly struggles were in progress, the multitude shouted with excitement at the sudden turns of fate, encouraging those who fought stubbornly, applauding the victorious, hooting at the timid, the weak, the dull, and the awkward, and not unfrequently demanding their death. A fatal thrust called out shouts, "He has it!" and in a duel, when one gladiator had received a disabling wound, the victor turned to the master of ceremonies, or the emperor, if present, to know whether he should dispatch his enemy, and the decision was governed by the conduct of the populace, who turned their thumbs up to save him if he had fought well, or turned them down for death if they were dissatisfied with him.

Rome rendered great service to humanity by preserving the peace within her dominion and establishing her civilization in Gaul, Spain, and the valleys of the Rhine and Danube. Her authority gave a security to life and property, and a fixedness to society, unknown in those regions before, and thus laid the foundation for a later and higher form of progress. But Rome originated nothing; she gave to the world no new order of architecture, no new science, literary, plastic, or pictorial art; she carried no old art to eminence unknown before; she invented nothing; she discovered nothing. For no important tool in our workshops, no process in

our industrial arts, no geographical or scientific discovery, are we indebted to Rome.

SEC. 117. *Roman Law*.—The first extensive codification of civil as separate from ecclesiastical law—in the code of Mœnu the ecclesiastical and civil laws are mixed together—was made in the latter part of the sixth century by order of Justinian. Previously the laws were recorded in decisions and elementary works not recognized as absolute authorities; and, as both these classes of records were voluminous, incomplete, contradictory, costly, and almost inaccessible, a code was needed. The work was done with a comprehensiveness, an accuracy, and a wisdom that do the highest credit to the compilers and to the Roman judicial system, the wisdom of which was there brought together in a clear and well-arranged whole. In many respects this code is far superior to the present legal system of England and America, and its production regarded by historians as one of the chief glories of Rome, to which the main credit belongs, though the work was done in Constantinople more than a century after the Teutons had established themselves as the masters of Italy.

SEC. 118. *No Inventions*.—With all their power, wealth, and numbers, we cannot trace one mechanical invention, nor one scientific discovery, even of third or fourth rate importance, to any person of the ancient Latin blood. Some discoveries were made under the dominion in Egypt, but by Greek scholars. The first mention of a magnifying-glass is made in a Latin work, in regard to an instrument used by a short-sighted emperor in observing a gladiatorial fight, but we are not informed of its character, or of the place where it was made; and we have reason to believe that nothing of the kind was known generally, even to learned men.

A rude reaping-machine on wheels was tried in Roman Gaul, but was probably a failure ; and the Gauls, under the empire, were the first to make and use soap.

SEC. 119. *Byzantine Empire*.—The Roman Empire continued to exist nominally, at least in Constantinople, until 1453, but its authority was reduced greatly by the Teutonic and still more by the Arabic conquests ; and in 700 it had fallen to be a mere shadow. It preserved the forms of the Roman government, but abandoned its language for the Greek ; and, after 800 A. D., the spirit of the administration was Asiatic rather than Eurarian. The officials were corrupt, and the people cowardly, boastful, dishonest, superstitious, and quarrelsome. The position of the capital was so favorable that it commanded a considerable trade, was an important strategical point, and could be defended with comparative ease against assault. It remained, therefore, the great city of Eastern Europe, as it still is, and rendered important service to mankind in many ways, especially in codifying the Roman law, preserving much of the literature of Greece, and repelling the advances of the Arabs and Turks.

CHAPTER IV.

THE MIDDLE ERA.

SEC. 120. *Title*.—The period between the overthrow of the Roman Empire of the West, in 450 A. D., by the Teutonic conquest, and the rise of modern civilization in 1450, has been generally known in English as “the middle ages,” but I prefer to style it “the middle era.” The period between 450 and 1100, when the crusades began, is the dark era, or the dark ages. The chief events of the middle era were the rise of Christianity, and afterward that of Mohammedanism, the overthrow of Pelasgian civilization, the substitution of the Teutons for the Pelasgians as the masters of Europe, the establishment of feudalism, the crusades, the growth of the papal power, and the establishment of a new set of Teutonic and Teuton-Latin nationalities.

SEC. 121. *Christianity*.—Jesus, the founder of Christianity, was born in the reign of Augustus, of Jewish parentage, in Judea. The time was ripe for a new and higher religion. Greek philosophy had undermined the foundation of the ancient polytheism. The numerous petty national creeds, each designed for a separate and independent political organization, had lost their appropriateness, when several dozen of them were brought under the dominion of Rome. The people, having become familiar with foreign superstitions, learned the absurdity of their own, and they grew tired

of barbarous divinities, who demanded conciliation by bloody sacrifices, complex ceremonial worship, and idolatrous observances. The faith of Jesus, as explained by Paul, supplied the want. It was based on Judaism, but rejected its nationality, its exclusiveness, its hatred of aliens, its ceremonial worship, and several inconvenient regulations, including that of unclean meats. Its doctrines, carried to Europe by zealous missionaries, spread rapidly, and in less than three centuries it had become the established religion of the empire, though several centuries more elapsed before it entirely superseded the ancient paganism among the rural population.

SEC. 122. *Doctrines.*—Christianity taught that God looks with equal favor on all nations, that therefore all men are brethren in religion at least, that He may be worshiped directly by all men, without complex ceremonial and without sacrifices, and that He rewards the good and punishes the bad in a future life. Those features in the new religion which gained favor for it were, as compared with Judaism, its universality and its freedom from forms, and, as compared with the Pelasgian mythology, its monotheism and freedom from coarse and stupid legends, and from idolatry. It is mainly Aryan in its character. The universality and freedom from form had been previously taught in Buddhism. When preached by Paul, they were first recognized as the feature of a new religion among the Greeks of Antioch, who called the believers "Christians." It was out of Judea that Paul gained most of his converts; and a few centuries later the religion was confined, as it still is, almost exclusively to the Eura-ryans, all of whom accepted it and carried it along with them in their intellectual development, so that nearly

every beneficent change since its appearance in the world has occurred under its dominion, and they have made it almost synonymous in their speech with high civilization, while Buddhism remained a creed of stagnation, and Mohammedanism a creed of barbarism.

SEC. 123. *Heresies*.—Although Jesus had observed the ceremonial law of Moses, had organized no church, and had never used the words bishop, pope, saint, apostolic succession, council, creed, sacrament, absolution, confession, celibacy, immaculate conception, papal infallibility, or plenary inspiration, yet a church was built up with these words as fundamental elements in its constitution, though some of the words, or the ideas represented by them, were not expressly recognized until after ages of disputation. The establishment of Christianity, as the state religion of the Roman Empire, was speedily followed by an extraordinary succession of dogmatic controversies; most of them were decided by general councils, though sometimes the decisions were not accepted as final until the minority had been exterminated. Infidelity and heresy, being regarded as the greatest of all sins, were punished as the most detestable of crimes. The principles that there was no salvation out of the true church; that no one could be a member of the true church without accepting its entire creed; that the creed should define supernatural mysteries and metaphysical distinctions with great refinement; that the welfare of humanity in this life is infinitely less important than salvation in the next; that the true church is infallible, and is certain of its orthodoxy; and that it should prevent the spread, teaching, and existence of erroneous doctrines, by physical as well as by intellectual influences, to the extent of its power, were universally accepted by the different sects.

Merciless persecution was the natural result of, if not the unavoidable deduction from, these premises.

The first great heresy was Arianism, which taught that Jesus, being the Son of God, was inferior to the Father. The first Ecumenical Council, called by the Emperor Constantine, to settle the questions thus raised, besides others, met at Nicæa, in Asia Minor, in 325 A. D., and decided that the Father and Son are of the same nature; that the Holy Spirit proceeded from the Father; that certain books should form the canon of the gospel; and that the Bishops of Rome, Alexandria, and Antioch, should have superior authority over all the faithful within the limits of their respective districts, or ecclesiastical provinces, making up the whole empire, and, with their councils, should have control in matters of discipline. The council also adopted a creed, and pronounced a curse upon all who should alter a word in it.

The Arians having been condemned, the Emperor Constantine soon began to persecute them, but, before dying, he began to favor them, and his son, Constantius, took their side and persecuted the Athanasians, who accepted the creed adopted at Nicæa. Before this controversy had been settled, many others arose. Some Docetes taught that the body of Jesus was a phantasm; others held that it was material, but incorruptible; the Cerinthians said God occupied the body of Jesus from his baptism till his arrest, his nature being wholly human at the beginning and end of his life; the Apollinarians thought he had a divine soul in a human body; the Nestorians objected to the worship of an infant deity, and considered the body of Christ the tabernacle of the godhead only during its manhood; the Monophysites accepted one incarnate divine nature in

Jesus ; the Monothelite doctrine, that he had only one will, was accepted by Pope Honorius ; and the Iconoclasts denounced the use of pictures and statues as objects of worship or as aids to devotion. All the dogmas mentioned in the preceding sentence were successively declared heretical and their adherents accursed by the councils of the church ; and in many cases bitter persecutions were used to extinguish the heresies.

SEC. 124. *Councils*.—The Council of Nicæa, in 325, decided that the Father and Son are of the same substance ; that of Constantinople, in 381, that the Father, Son, and Holy Ghost, are coequal with one another ; that of Ephesus, in 431, that Christ had two natures, human and divine, in one person ; and that of Chalcedon, in 451, that the two natures remained distinct, notwithstanding their coexistence in one person. All the general councils before A. D. 700 were called by the emperors, and the first four were held in Asia Minor, and not more than one in fifty of their members came from Western Europe, including Italy.

SEC. 125. *Greek Schism*.—Although the Church of Rome recognized the authority of the first Council of Nicæa, and had adopted the Nicene creed, with the anathema pronounced against those who should add a word to it ; yet, at the request or dictation of Charlemagne, the words “and the Son” were added to that part of the creed stating that “the Holy Spirit proceeds from the Father.” This addition was repudiated by the Patriarch of Constantinople, and by the Christians under his dominion, in the Byzantine Empire, including Eastern Europe and Asia Minor. The division led to a final separation into the Roman and Greek Churches, the main points of difference at present being that the former believe that the Holy Spirit proceeds

from the Son as well as the Father; that there is a purgatory; that unleavened bread should be used in the sacraments; that the Bishop of Rome is the head of the church, that he is infallible in matters of faith, and that the conception of the mother of Jesus was immaculate.

SEC. 126. *Rise of the Papacy.*—This doctrinal separation between the East and the West, the rise of Teutonic power, and the decline of the Byzantine Empire, protected the popes against the most powerful ecclesiastical and political influences which had previously stood in their way, and enabled them to claim honors and exercise authority unknown to the popes in the preceding centuries.

In the fifth and sixth centuries, the Patriarchs of Alexandria and Antioch, under the authority of the first Nicene Council, and the Patriarch of Constantinople, under the favor of the emperor, claimed authority in the church equal to that of the Bishop of Rome, and were sustained by the clergy of their respective ecclesiastical provinces; but when most of their adherents in the seventh and eighth centuries abandoned the cross for the crescent, while the number and power of the Christians in Western and Northern Europe greatly increased, they could no longer claim an equality. Many circumstances contributed to assist the Bishop of Rome in his contest for ecclesiastical supremacy, and among these was the conversion of England and Germany by missionaries, who acted under the direct authority of the pope, and who established their churches in obedience to him. A German council, in the middle of the eighth century, ordered the German bishops to accept palliums only from the pope. The Iconoclast excitement, beginning in Constantinople

about 725, gave great offense in the West, and strengthened the disposition in Teutonic Europe to look to Rome alone for ecclesiastical guidance. The substitution of the Romance languages for the Latin in common use, the preservation of the Latin as the tongue of the priesthood, and the possession by the priests of all the learning, and of the only medium of international communication, were other influential aids to the church.

SEC. 127. *Political Power*.—The power of the clergy and the dignity of the papacy increased steadily and rapidly till the end of the thirteenth century. In the eighth century, the practice of getting the pope, or his representative, to crown kings began, and it soon became a general custom. The celibacy of the clergy, a measure of great importance to the discipline and compactness of the ecclesiastical body, after having been ordered by several provincial councils, was finally made obligatory for the whole church in 1074. In the previous year the pope had declared that he was the vicegerent of God on earth, and that the clergy were exempt from any civil jurisdiction, and he had induced several kings to consent that the ecclesiastical courts should determine all suits relating to wills, divorces, and the titles of property held or claimed by the church. The clergy were not only the confessors and advisers of all classes of people, but they were, in many cases, the ministers and secretaries of kings, and the judges and clerks of civil courts, and thus masters of the secrets of the government, and of the administration of justice. They obtained possession of a large part—in some states, of one-third—of the land. With their wealth, their tenants, their personal and official influence, they often held the balance of power between

parties in the numerous civil wars, and they took good care to advance the interests of the church.

SEC. 128. *Papal Elections*.—After the papal office had become one of great influence, serious evils resulted from the defective system of election. When the pope died, the inferior clergy of the city met and were surrounded by a rabble, at whose dictation they chose a successor. Frightful riots often followed the elections, and for several centuries civil wars were frequent, and the popes had, in many cases, to flee from popular violence, or to suffer if they could not escape. John X. was murdered in 928, and John XII. in 962; Benedict VI. was strangled in 964; Benedict VII. was slain in 983; John XIV. was starved to death in 984; John XV. was driven out of the city in the next year; and Gregory V. in 997; John XVI. was deposed and mutilated in 999, and between 1012 and 1046 five popes obtained the tiara by bribing the Tusculan counts who controlled the elections. The reformed method of electing the popes by a college of cardinals was adopted in 1059, and was speedily followed by a decided improvement in the character of the pontiffs, and also by a great improvement in the good order of the city.

SEC. 129. *Crusades*.—Before the close of the tenth century Christianity was the dominant religion in all the western, central, and southern parts of Europe, save Spain, and the people, generally, were most devout believers, accepting every thing that was told them by the priests, and acting on their belief. It was under such influence that the supposition became current that the world would be destroyed at the end of a thousand years from the birth of Jesus; and when that date passed quietly the catastrophe was postponed till a thousand years from his baptism, and then from the

crucifixion. Meantime, pilgrimages to Jerusalem became fashionable, and a visit to the holy sepulchre was regarded as a powerful security for salvation.

Although the Mohammedan law granted complete toleration to Jewish and Christian travelers and residents, yet many of the pilgrims were plundered and insulted by fanatics and robbers in Palestine, and at last the patience of the Christians was exhausted. In 1094 the pope called on the people of Western Europe to rescue the Holy Land from the Saracens, and, at the same time, he "promised eternal life to all who should suffer the glorious calamity of death in the Holy Land, or even on the way thither." This appeal was answered with wonderful enthusiasm. In 1096 an army of one hundred thousand mailed horsemen, accompanied by four hundred thousand others, including women and children, started on the first crusade for Palestine by land; and, though most of them died on the way, yet, enough survived, with the help of reënforcements, to take Jerusalem in 1099, and to commit a sack and massacre unsurpassed in history for its brutality.

This triumph led to a great activity in the business of pilgrimage, but, as Palestine could not be held without constant watchfulness and frequent fighting, a second crusade became necessary half a century later; and in 1187 the holy city was again in the hands of the Saracens. Two years afterward the third crusade was undertaken, and four others followed at intervals, the seventh and last in 1240, but Jerusalem was not recovered, and in 1299 all the armed Christians were expelled from their last stronghold on the Syrian coast. In the two centuries of this warfare one million persons had been slain, but it had not been without some compensations. The crusades had brought the people

of Europe together, enabled those of the more backward districts to learn from the more civilized, stimulated industry, diffused skill in the useful arts, made a demand for shipping, enriched many of the Italian republics, strengthened the towns and the monarchs, weakened the feudal system, and prepared the way for the consolidation of the leading nationalities. But, before the crusades had closed, the ideas began to prevail that the expulsion of the Christians from Palestine led to a useless waste of the money, devotion, and energies of the faithful among enemies of the church; that visits to Rome would be cheaper, more numerous, and less dangerous to the health, morals, and faith of the pilgrims; and that the influence of religion and the dignity of the papacy would be enhanced by substituting the cathedral of St. Peter for the sepulchre of Jesus, as the chief object to be venerated by those whose piety might need to be stimulated by the contemplation of a monument erected to the sanctity of somebody else. Before the middle of the fourteenth century pilgrimages to Jerusalem had become comparatively rare, while those to Rome were very numerous, and were sources of great profit to the papal treasury.

SEC. 130. *Monastic Orders*.—The power of the church was much increased by the monastic orders. Hermits had devoted themselves to religious contemplation and solitude in the second and third centuries, but it was not until the beginning of the sixth century that the first monkish order was organized, bound to live together in convents, to be governed by fixed rules, and to observe regular forms of worship. Many other orders were established soon after, each established mainly to secure the salvation of its own members in theory; but, as much wealth was bestowed on them,

and their rules were relaxed, they not unfrequently became refuges of idleness and vice. At the beginning of the thirteenth century, the orders of St. Francis and St. Dominic were established, and, to avoid the abuse in other orders, their rules required their members to live by charity, and to labor among the people for the advancement of religion. The Franciscans could not for a long time own any thing either personally or as an organization, but the inconvenience of not being able to own their dwellings, books, and materials necessary for devotional exercises, led to an abandonment, or at least a relaxation, of the rule as to the order. The Dominicans devoted themselves especially to preaching, and preferred the cities, while the Franciscans were ready to labor anywhere, no matter how few or poor the people. The Dominicans and Franciscans were classed together as the mendicant friars.

SEC. 131. *Quarrels with Princes.*—The church was involved, almost without intermission, in quarrels with princes about the limits of its authority; and as the priests monopolized the learning of the dark ages, and had besides an organization coextensive with Christendom, they had great advantages over the rude and isolated warriors. In 776 a forged document, styled "The Donation of Constantine," was published, purporting to be a deed made by that emperor, recognizing the headship of the pope in the church, and granting to him temporal supremacy in the western portion of the empire. Though considered a fraud by many priests, others put it forward as genuine, and it was used with effect by the popes down to the time of the Reformation. Another forgery, made with more skill and care, called the "False Decretals," was published in 845,

and generally accepted as genuine within the next twenty-five years. These decretals, purporting to be laws adopted by various popes, declared that the secular is to be controlled by the divine (meaning the priestly) power; that laws contrary to the decrees of the papacy are void; that the civil courts have no rightful jurisdiction over priests or property claimed by the church; that in important cases tried in ecclesiastical courts, there is an appeal to the papal court at Rome; and that any suitor, no matter what the matter in controversy might be, could transfer his suit from the civil to the ecclesiastical jurisdiction. Pope Boniface VII., in a manifesto, said: "Christ founded not only a pontifical but also a royal sovereignty, and committed to Peter the rule both of an earthly and a heavenly kingdom, as is indicated and visibly proved by the plurality of keys. . . . To the pope belongs the coronation of the emperor, who is thereby bound by the consent of ancient and modern times to allegiance and subjection." The German emperor being the chief potentate of that time, it followed, if he was subject to the pope, that, for still stronger reasons, all other sovereigns were. The *Unum Sanctum* Bull, published in 1302, said: "There are two swords, the spiritual and the temporal; . . . the former that of the priests, the latter that of the kings and soldiers, to be wielded at the command, and by the sufferance, of the priest. One sword must be under the other, the temporal under the spiritual. . . . It is necessary to salvation to believe that every human being is subject to the Pontiff of Rome." There was no lack of effort to establish those principles in practice. For centuries, in every country of Western Europe, the papal came into conflict with the regal power; and, as the people gener-

ally were thoroughly penetrated and filled up with the belief that their eternal happiness in the next world depended upon their obedience to the faith and discipline of the Catholic Church in this one, the kings were at a great disadvantage. An excommunication made them very uncomfortable, and an interdict of the nation, closing the churches, forbidding the performance of marriage, burial, or any ecclesiastical service except baptism and the last unction, caused great confusion and popular discontent. The people frequently rose in rebellion against rulers who were under the ban of the church; and kings were anxious to avoid quarrels with the popes, unless they could secure, as they frequently did, the support of the national clergy. Yet excommunications were not uncommon in the eleventh, twelfth, and thirteenth centuries. Ten sentences of deposition were pronounced against various German emperors in the period of one hundred and sixty-six years, from 1084 to 1250, or one on an average in sixteen years. Henry IV. was deposed five times, Frederick Barbarossa, Henry VI., and Otho IV., each once, and Frederick II. twice: but the last time was the only case in which the deposition proved effective in Germany. The popes also tried to depose one King of England, one of Aragon, and three of Sicily. Perhaps the most significant display of papal power was made in 1076, when Henry IV., Emperor of Germany, having been excommunicated and declared deposed, went to Italy to beg for absolution and restoration, and had to wait as a suppliant for three cold winter days, while clad in scanty clothing, at the gate of the castle of Canossa (where the holy father was staying), before his prayer was granted.

Philip Augustus, of France, having divorced his

first wife and married again, was compelled, by an interdict, to dismiss the second and take back the other ; and the King of Leon, having married his cousin without an ecclesiastical dispensation, was compelled, by an interdict, to dismiss her ; Peter II., of Aragon, surrendered his kingdom to the pope, and accepted it under an oath of perpetual fealty and obedience to the pope and his successors ; and John, of England, surrendered his kingdom and accepted it again under similar terms. The English title to Ireland was based partly on conquest and partly on a gift of the island to Henry II. by Pope Adrian IV., and this gift was confirmed by Alexander III., and recognized as valid by John XXII. In many cases the papal decrees, deposing kings and bestowing crowns, led to serious insurrections and troublesome foreign wars, without changing the succession.

SEC. 132. *Ecclesiastical Rebellion.*—The power of the church led to corruption. Many of the high ecclesiastical offices were sold or given to incompetent and dissolute persons. Julius Medici, afterward Pope Leo X., was appointed abbot of sixteen abbeys while he was still in his cradle, and he was a cardinal at seventeen. The king and nobility had authority to appoint most of the abbots in France, and they misused it shamefully. The appointments were sometimes given as rewards for base services. Pope John XXII., deposed in 1415, was convicted, by the Council of Basle, of four grave crimes, including murder, and Gibbon says that the most scandalous charges were suppressed. The privileges of the priesthood were so great that bad men sought admission to it as a means of shielding themselves from the exposure and punishment of vices and crimes. The grossness and wide extent of their im-

morality are recorded in many official documents, and the necessity of a reformation of the discipline of the church was admitted a century before the Reformation by many prominent men, and many moves to obtain it were commenced.

Each of the three centuries preceding that of the Protestant Reformation was marked by a serious popular rebellion against the Church of Rome. The first was that of the Albigenses, in Southern France, in the beginning of the thirteenth century; the next was that of Wycliffe, in England, in the last half of the fourteenth; and the third that of Huss, in Bohemia, in the first quarter of the fifteenth. In each the Bible was appealed to as the proper guide in matters of faith; the exclusive authority of the church, as an organization to interpret the Gospel, was denied; the right of private judgment was asserted; indulgences were denounced; and the Roman priesthood was declared corrupt. The Albigenses were exterminated by a crusade, with fearful cruelty; and Milman, an excellent authority, says that "never, in the history of man, were the great eternal principles of justice, the faith of treaties, and common humanity, so trampled under foot as in the Albigensian War." When the fifteen thousand inhabitants of the town of Beziers were slaughtered by the conquering crusaders, after a successful assault, a monk, who was asked whether a person who claimed to be orthodox should be spared, answered in the negative, saying, "Kill them all; God will know his own." The Albigenses were the most intelligent people in Europe at the time, and they already had a popular literature, and made common use of the Bible in the Provencal dialect.

Wycliffe denounced the Church of Rome in very

plain terms, but the government and the local clergy were not disposed to persecute him ; and, though he had many followers, none of them attracted much attention in England, and gradually the danger of a schism there disappeared.

The doctrines of Wycliffe, as taught, with some modifications, in Bohemia, by John Huss, gained very extensive favor there. They were condemned by the Council of Constance, and he and his friend Jerome of Prague were burned in 1415 by order of the council, because they refused to retract. Before going to Constance, Huss had demanded and received an imperial safe-conduct, or solemn assurance in writing, from the German emperor, that he should be allowed to return unharmed to his home ; but, when Huss was arrested, the emperor said the priests were acting without authority from him, and he had promised protection only against those under his control.

SEC. 133. *Teutonic Migrations*.—The Teutons first attracted the attention of Roman historians about the beginning of the Christian era, and were then savages, dwelling in rude huts in the summer, sheltering themselves in pits covered with earth in the winter, cultivating a little grain, and depending on their herds or the chase for much of their food. It was not until the fourth century that they built houses of wood and stone. Agriculture was the work of slaves ; war the chief and most honorable occupation of freemen. Their government, in time of peace, was similar to that in war, when the soldiers elected their leaders and deposed them at will in public assemblies. Every freeman had an equal vote on such occasions, and it was expected that at all times he would stubbornly assert and exercise every privilege not necessarily surrendered for the mainte-

nance of discipline. A priesthood exercised much influence by declaring whether the auspices were favorable for important enterprises. They taught a future life and a heaven of gross enjoyments for the brave, and a place of perdition for the base and cowardly. Their chief deity was a god of war, whom they worshipped with sacrifices, sometimes immolating human victims.

The Teutons learned something of agriculture and metallurgy from their southern neighbors, and slowly increased in numbers and improved in the art of war. In 150 A. D. they had already become dangerous, and began to make armed inroads, which, though uniformly defeated for a long series of years, would, it soon became evident, finally triumph. All the frontier provinces, from the north to the Black Sea, were exposed by turns to continuous attacks until 430 A. D., when they had established themselves permanently in France, Spain, Italy, Roumania, and Northern Africa, west of Egypt. Rome was first captured by them in 410 A. D., and repeatedly again within the next three centuries, suffering severely at every change. The Franks, who settled in France, the Visigoths in Spain, the Lombards in Italy and Hungary, the Vandals in Africa, and the Alans, Alemanni, Suevi, and Burgundians, in various provinces, were all Teutonic in their blood, tongue, and political institutions. Among the extensive conquests of the world theirs has been the most important and most durable; and it is to them that Europe owes its present character and development.

SEC. 134. *Other Invaders.*—The Teutons, who came by land, were not the only invaders of Western and Southern Europe in the middle era. The Huns, of a Tartar or Turanian race, from the steppes of Asia,

devastated the valleys of the Danube and Rhine in 450. Defeated by the Romans and Goths at Chalons, in 451, with terrific slaughter, the Huns turned back, and, next year, plundered the principal cities in the valley of the Po, and then retired to Hungary, where their descendants were conquered in the next century by the Lombards, and they in their turn, three centuries later, by Magyars, who still occupy the country. The Slavonians followed the Germans in attacking Constantinople, and, though they failed in their attempts to take the city, they deprived it of much of its tributary territory, and settled themselves in a large part of what is now Turkey and Greece. The Saxons appeared in England in 449; the Arabs in Spain in 715; in the ninth century, the Normans (from Sweden and Norway) plundered the coasts of France, and considerable colonies of them settled in Normandy; and the Danes settled in Ireland about 850, and ravaged England for more than a hundred years before they conquered it in 1016.

SEC. 135. *Western Europe Teutonic*.—The Teutonic invaders, who conquered the western provinces of the Roman Empire, were comparatively few in number, and, finding themselves decidedly inferior in intelligence and refinement to their subjects, adopted their religion, and most of the material for a new language, in which the words were modified Latin, and the syntax Teutonic. After one set of invaders had established themselves firmly, another came, sometimes of a different tribe; and, if they succeeded in gaining a settlement, by either conquest or concession, they were still a minority and were compelled to adopt the tongue in general use. It has been claimed that the Frenchmen of the present day are predominantly Gallic, but the entire

extinction of the Celtic language first, and of the Latin afterward, is not readily to be harmonized with the claim. The Celts of Britain retired to Wales and Scotland, and preserved their tongue; why should the original tongue of the French Celts, and afterward their adopted Latin tongue, have disappeared, not only in their country generally, but in every province? The men, even if of equal number with the women, adopt their speech, and, under a succession of invasions, continued for several centuries, the invaders, in nearly every case, settling down as masters, the predominance of the original tongue, or the preservation of its main features, proves nothing of the relative proportion of the blood of the original inhabitants. We are told that many of the provinces of Gaul were devastated and depopulated by the barbarian wars; we know that most of the ancient cities went to ruin; and we must presume that a majority of the survivors belonged to the victorious nationality. In no large district, of France or Spain was either Latin or Celtic preserved in the common speech after the close of the Teutonic invasion. The Romanic dialects varied greatly in minor points, but all were alike in being entirely different from Latin in inflection and syntax.

SEC. 136. *New Tongues.*—The change in the tongues of Western and Southern Europe commenced with the Teutonic invasion, and was not complete a thousand years later. Now we think of national languages, but, for centuries, there were only provincial dialects, and the supremacy of one in each nation was usually determined by the fact that it was used in the court after the nationality had been consolidated. In Germany the Saxon owed its predominance to its adoption by Luther in his translation of the Bible; and the Tuscan

was assisted in Italy by the writings of Dante, Boccaccio, and Petrarch.

In Italy, France, Spain, and Portugal, the Teutonic, and in Roumania the Slavonic and Teutonic words gave way gradually before those of Latin derivation, but the northern grammar prevailed over the southern, and the new languages thus formed presented, with the English, German, and Scandinavian, a new class of tongues, differing greatly from the Latin, Greek, Sanscrit, and most other Aryan languages in the paucity of their inflections, and the simplicity of their grammatical structure. There are thirteen hundred grammatical derivatives, each different in form, framed by inflection from one regular radical verb, in Greek, whereas in English we have only six different forms of derivatives in regular verbs, formed by inflection: thus, from love we derive loving, loved, loves, lovest, loveth, and lovedst; or, six in all. We depend upon the nominative usually to distinguish the person and number of the verb, and upon auxiliaries to distinguish most of the tenses. In the French and Spanish there are about ten times as many derivatives from each infinitive among the regular verbs as in English; in Greek about two hundred times as many.

SEC. 137. *Feudalism*.—The Teutonic conquerors established a new political system, called feudalism, in Western Europe. The monarch by conquest became, in theory, the owner of all the land, which he divided out among his chief captains, who, in return, were required to acknowledge his sovereignty, and to serve him in war without pay—if he should so require, for a fixed period in every year, usually not more than three months—with a number of men proportioned to the size of the dukedom, earldom, county, barony, or

other possession. The dukes, earls, and counts, sometimes sublet their lands to minor nobles. In most countries the tillage was done by serfs, who were attached to the soil, bound to cultivate it, and under obligation to serve their lord in war, and to give to him a portion of the crop—usually one-half or more. They were entitled to no money wages. The condition of the free men, who could change their residences and occupations without leave of any lord, was little better than that of serfs, and sometimes not so good. In some countries the law provided that every piece of land and every tiller of the soil must have a feudal lord.

In feudal times heavy-armed horsemen obtained an importance in war unknown in antiquity, while chariots, and chariots with scythes, entirely disappeared. The change was due partly to the invention of (stirrups), which gave the rider a more secure seat, and to horse-shoes, which fitted the horses for longer and more steady service. Both inventions were made in the dark period after the Teutonic conquest. One armed horseman was counted equivalent in battle to a multitude of footmen; and the institution of chivalry, in which all the honors of society were reserved for the knights, followed.

SEC. 138. *Nobility*.—Feudalism was designed to establish the authority of the Teutonic conquerors over the Latin and Gallic population, and to provide a method for speedily calling out a formidable military power. It controlled the forces of the whole kingdom, and yet relieved the king from many of the troubles of administration. If a noble failed to obey the summons, he was dispossessed. The main purpose of the feudal system being military at first, the feudal possessions went with the military commands, so that, when a duke died, his

dukedom was given, not to his minor child, but to some experienced captain fit to aid his king in war. As, however, the Roman and Gallic populations readily accepted the Teutonic yoke, the fiefs soon began to pass from father to son, and thus the hereditary nobility of modern Europe arose. It was strictly feudal in its origin.

SEC. 139. *Feudal Evils*.—The great feudal lords had the larger part of the administration in their hands. They maintained courts of justice, coined money, and made war on one another, without violating their duties to their sovereign. The subordinate could not transfer his estate, the serf and the orphan girl of noble family could not marry without the consent of the superior, and he frequently exacted pay for it. Each great noble, holding his fief directly from the crown, led his own men in war, and kept them separate from other forces, so far as possible; and it was probably the custom of meeting in arms that fixed the boundaries of dialects in most cases, every county or dukedom having its own. The modern ideas of nationality were slow in taking shape. (The nobles frequently used their right of making war on one another, and, of course, their serfs suffered and formed animosities inconsistent with national feeling.) Gradually the right of private war was restricted. In 1245 an ordinance was published in France forbidding any one to commence hostilities against the friends or vassals of his adversary till forty days after the offense for which the war was undertaken. In 1296 it was ordered that no private war should be prosecuted while the king was fighting a foreign enemy; and it was not until 1413 that private wars ceased in that country.

SEC. 140. *Free Cities*.—The nobles claimed a des-

potic power, including the right to levy unlimited taxes and tolls on all business established in, and on all merchandise passing through, their fiefs. When the monarchs began to consolidate their kingdoms, and weaken the power of the nobles, they saw that they must strengthen the people, and they did this by granting charters to towns and cities, conferring upon them important rights. Some of the old Roman cities may have retained certain ancient privileges, including that of electing their municipal councils; but many new charters were issued as early as the middle of the tenth century. The free cities generally had the rights of managing their local municipal affairs, erecting fortifications, enlisting soldiers, making war, administering justice, and being exempt from all taxes, save those specified in their charters. The government was placed in the hands of the burghers, or governing citizens, who were always householders, and usually a minority of the adult males within the walls. In some cities all the burghers were men of wealth or influence. Among the common privileges of burghers were, that they could demand the settlement of their disputed rights before courts of justice without resort to duel, a test in which they were unfairly matched against the warrior nobles; they might require dangerous enemies to give bonds to keep the peace; they could demand civil process to enforce the collection of their debts; they were entitled to protection in their rights by their fellow-burghers and the city; felons, convicted in their courts, were not to be released for money payments; and new burghers were not to be created unless they were householders, or, in most cases, owners of their own dwellings. As a general rule, a burgher lost his burghership when he became insolvent.

These privileges gave advantages so great that the cities rapidly rose in importance and wealth, while the nobles lost their power, and serfdom rapidly decreased. The cities of Italy were the first to become opulent, and those of Flanders soon followed in prosperity. After the expulsion of the crusaders from Palestine, Jerusalem began to lose its credit as a resort for pilgrims, and Rome became the centre of attraction for them, and the Italian peninsula was enriched by them in the thirteenth and fourteenth centuries. Venice, Milan, Florence, Pisa, and Genoa, shared the benefit of the pilgrimages with Rome. About the same time, Bruges, Ghent, and Liege, were the great manufacturing cities of Northern Europe. The Duke of Brabant, in 1339, and the Duke of Milan, in 1367, gave to their daughters marriage portions such as were given by no king in that century.

SEC. 141. *Germany and France.*—Charlemagne ascended the Frankish throne in 768, and he reigned forty-six years over an empire that extended from the Elbe to the Ebro, and from the North Sea to Hungary and Naples. He was Teutonic in blood and speech, and the main strength of his armies came from districts that were almost exclusively Teutonic. He conquered the Saxons and compelled them to accept Christianity; allowed the pope to crown him; and, in return, he granted a temporal sovereignty over the city of Rome to the papacy. Education had great value in his eyes, and he made strenuous efforts to advance it. Soon after his death the empire was divided, and Germany and France were separated. The latter was recognized as a kingdom, the former as an empire, the successor in dignity of the ancient Roman Empire, with dominion over a large part of Italy.

SEC. 142. *England*.—The rival kingdoms in England were consolidated into one in 827, and the language of the people was Saxon, the Romans having entirely disappeared, and the Celts, generally, having been exterminated or driven into Scotland or Wales. The Normans, who had established themselves in the northwestern corner of France, in the latter part of the ninth century, had entirely abandoned their Scandinavian speech within two hundred years; and, when they conquered England in 1066, they brought with them the Norman-French dialect, which remained, for three centuries, the language of the court and nobility. At last it had to give way, but not until it had mixed itself up with the Saxon in such a manner that the tongue was far from being purely Teutonic.

SEC. 143. *The Arabs*.—While the Teutonic nations, after having overthrown the Empire of the West, were still continuing their migrations from Northern to Southern Europe, the Empire of the East was dismembered by a new race of conquerors from Asia. Nearly six centuries after the death of Jesus, a new religion, which was to contend with Christianity, through a period of a thousand years, for the dominion of Europe, arose in Arabia, a country which had never before produced a great man or a leading idea, and which has produced none since the four centuries of Arabian conquest ceased—a country which, midway between the valleys of the Euphrates and the Nile, which were long the chief centres of Oriental barbarism, remained ignorant of their arts, and powerless in arms, until awakened by the stimulus of religious fanaticism. Though Arabia occupied a high place, and now has a low one, in commerce, manufactures, and the general intelligence of her people, yet her language is, perhaps,

more widely spread than even that of England, and her religion is the rule of life for a fifth part of the human race.

SEC. 144. *Mohammed*.—Mohammed, though unable to read when he announced himself the Apostle of Allah, had, in his travels as a trader, caught many of the ideas of the Jews and Christians, and he saw the opportunity to convert his countrymen from their polytheistic opinions and idolatrous practices, and to free them from the control of their ignorant and debased priesthood. His genius more than compensated for the defects of his education; and his career was one of the most brilliant successes on record. At forty he began to teach his religion, at fifty he saw it spreading beyond the districts in which he was personally known; and when he died at sixty-two, after ten years of rapid and uninterrupted conquest, he was not only the master of Arabia, but he was treated, by all the people who came near him, with a reverence that merged into worship, and he left a military power from which great triumphs might reasonably be expected.

SEC. 145. *Islam*.—Islam, or, as we call it, Islamism, means submission to the will of God, and Mohammed represented it to be a reformation of Judaism and Christianity, a return to the doctrines of Abraham, which had been corrupted by the later teachers of Jerusalem. He recognized Moses and Jesus as apostles, like himself, sent by Allah, to teach mankind, but asserted that the records of their teaching had been falsified, and he was higher in authority, as well as later in date, than either, and would furnish to the world the only pure gospel. His creed and his worship were simple: Allah, without division of personality or nature, reigns over the universe and loves mankind; Mo-

hammed is his divinely commissioned and infallible apostle. Believe in God and his apostle, be just and kind to your fellow-men, and you shall fare well in the future life. But, to gain the highest favor, you should, in addition, pray five times daily (at daybreak, noon, mid-afternoon, evening, and the first watch of the night), with the face turned toward Mecca; wash before meals; abstain from wine and pork; have no image of any living thing; keep no Mohammedan in slavery, and observe certain prescribed fasts. Obey these commands, and heaven, with infinite pleasures, intellectual, and sensual shall be yours. Unbelievers shall not share the same enjoyments, but no severe punishment is threatened for ignorant or honest disbelief.

SEC. 146. *Tolerance*.—Although the Koran has made no noteworthy progress in the temperate zone without the help of the sword, yet Islam is a tolerant religion. Its followers do not regard infidelity or heresy as criminal, and persecution for theological opinions has not been their rule. They have never had an inquisition, or witnessed the burning of an unbeliever under authority of law. The Mohammedans always allowed conquered Christians to adhere to their faith, and even to have public worship, on condition that they would pay tribute. No wars of compulsory conversion like those of Charlemagne, no expulsions of unbelievers like that of the Moriscos from Spain, stain the record of Mohammedanism. The succession of the Greek patriarchs in Constantinople and Jerusalem has been regular for more than four centuries, and their relations with the sultan have been far more amicable usually than those of the pope with the Kings of France and Germany. The Koran says, "No man can believe but

by the permission of Allah," and again, "Those who are Moslems, and those who are Jews, and the Christians, and the Sabæans, who believe in God and the last day, and work righteousness, for them is their reward with the Lord, and there is no fear for them, and they shall not be put to sorrow."

Tradition ascribes to Mohammed a proverb that the "ink of the sage is as precious as the blood of the martyr," a saying inconsistent with the spirit of persecution. Many of the caliphs invited Christian scholars to their courts, and were glad to have Christian students in their schools. Ambitious young Frenchmen, in the tenth century, went to the Arabic schools of Spain, and there Gerson, afterward Pope Sylvester II., was educated. Caliph Haroun Al Raschid employed Nestorians as head teachers. While ignorance and rudeness prevailed in France and Germany, Bagdad, Damascus, and Cordova, were centres of politeness and learning.

SEC. 147. *Priesthood*.—Although there is a priesthood, yet it is neither celibate nor hereditary, nor is its ministration necessary to secure the admission of any one to paradise. The heaven of Mohammed is open to every believer, without the help of any redeemer or absolver. As the priests are not the custodians of the keys of the celestial mansions, so they have never been able to establish an ecclesiastical tyranny. They have never set up any temporal power, never come into extensive conflict with the civil power, never demanded the establishment of any inquisition, or the prosecution of any wars to suppress heresy. There have been and are numerous differences of opinion among the Mohammedans, but they are few and small as compared with those of Christianity, and wars be-

tween Mohammedans, on account of differences of sectarian opinion, have been few and comparatively unimportant.

SEC. 148. *Progress of Islam.*—The progress of Mohammedanism was not less remarkable for a century after the death of its founder than during the last ten years of his life. No other religion had ever met with such success within three generations after its promulgation. It awakened a wonderful enthusiasm among the people, and was fortunate in commanding the services of a number of able generals. Unlike Buddhism and Christianity, which owed their extension (the latter mainly, the former entirely) to conversion by preaching, Islamism spread only by arms. The new religion never established itself anywhere, unless in Malaysia, or Central or Southern Africa, until after the country was brought by force under the dominion of a Mohammedan prince. The conquests advanced with wonderful rapidity, and the people generally accepted the faith without difficulty. The Arabs took Damascus in 639, Alexandria 640, Jerusalem 646, Persia 651, Morocco 698, Spain 712, and Sicily 878. Within two centuries and a half after its promulgation, Islamism was dominant in the Mediterranean, from Spain to Syria. The Arabs attempted the conquest of France, but were decisively defeated in 732, and thereafter their power in Spain began to decay, but it was not finally overthrown until 1492. Mohammedanism continued to advance in Asia; in the middle of the fourteenth century it became master of Asia Minor to within sight of Constantinople, crossed the Hellespont, established itself in what is now Turkey, and continued to press the Grecian metropolis until it fell in 1453. The city had been greatly weakened and impoverished by long warfare and the

loss of its tributary territories, and, when at last taken, it had only one hundred thousand inhabitants, although a thousand years earlier it had had one million. This conquest was made by the Turks, who (after Arabia ceased to send out armies in the eleventh century) became, and have since remained, the chief representatives of Mohammedan power. The Christian nations of Western Europe, without any great exertion, could have saved Constantinople, and would have done so if religious animosities had not stood in the way. The Greeks begged the pope to use his influence in their behalf, and he offered to do so if they would abjure their heresies and acknowledge his ecclesiastical supremacy. These terms were accepted by the Constantinopolitan government as the only hope of escape from Turkish dominion, but the people protested that they would rather be subject to the sultan than the pope, and they were left to their fate. Sectarian animosities among the Christians helped the Turks to conquer Roumania, Servia, Bulgaria, Greece, Transylvania, Hungary, and parts of Southern Russia. While besieging Vienna, in 1683, they suffered a defeat which marked the end of their policy of aggression in Europe, and of their recognition as one of the great powers. Within forty years after that time they were entirely expelled from Hungary, Transylvania, and Azof; and, though they have retained their nominal dominion over Bosnia, Servia, Bulgaria, and Roumania, their power there is slight. In the latter part of the sixteenth century the Mohammedan Mongols conquered Hindostan, and thus their religion became established there. This was the last great conquest of Islamism, which has since remained nearly stationary.

SEC. 149. *Genghis Khan and Timour*.—In the first

quarter of the thirteenth century, Genghis Khan, a Tartar, conquered portions of Northern China, and of Southeastern Russia, and a wide region between them, extending across Asia, but at his death his empire, if such a name was deserved by his loose authority, fell to pieces, and nothing was left of it save the record. Timour, or Tamerlane, another Tartar, born near Samarcand, gained still more extensive conquests in the last half of the fourteenth century. He overran Persia, Syria, Georgia, Tartary, and parts of Russia, Hindostan, and China. When he took Bagdad he slaughtered ninety thousand human victims, and threw them into a large pile. His empire, too, died with him, and no formidable army, no successful general, remained to show the benefits of Timour's teaching.

SEC. 150. *Venice*.—From the time when Teutonic culture began to show the promise of its future greatness, in the days of Charlemagne, Italy advanced rapidly in wealth and the useful arts. Venice, which had been founded on some low islands near the head of the Adriatic, in 452 A. D., by fugitives from the valley of the Po, ravaged by the Huns, became the leading commercial city. Her insular situation gave her security against attacks by land, and her navy protected her from hostile fleets. Venetian ships carried pilgrims to and from Palestine, and imported from Constantinople, Azof, Alexandria, Antioch, and Smyrna, the few spices, gems, drugs, and cloths of cotton, silk, and camel-hair, then demanded by Western Europe, and brought to the Levant by caravans or trading-vessels from India. When the crusaders wanted ships to transport them to the Holy Land, the Venetians were ready to serve them; and, as the trade between Europe and Asia increased, Venice continued to control a large part of it. She be-

came the chief naval power, and the richest city of Europe, and her artisans were, in many branches, unequaled in their industrial skill. At one time she had three thousand merchant-ships and nineteen thousand sailors. She had conquered part of the adjacent coast, north and west of the Adriatic, and she held control in Calabria, the Grecian peninsula, Rhodes, and Cyprus. With her help a Latin empire was established at Constantinople in 1204, and sustained for more than half a century. She was the first to keep ambassadors at foreign courts, and for centuries her diplomatists were, as a class, unquestionably superior in ability to those of any other nation. Her commercial supremacy was maintained from 700 to 1500, and she was so formidable in 1508 that Germany, Spain, France, and the pope, organized the League of Cambray for the purpose of effecting her ruin. They defeated her and deprived her of some of her tributary provinces, but she would have recovered if enemies more potent than the League of Cambray had not undermined her power. These enemies were Vasco de Gama and Columbus, who, by circumnavigating Africa and discovering the New World, gave to the Atlantic great advantages for maritime traffic over the Mediterranean ports, and destroyed the trade between Europe and Asia by way of the Levant. The Portuguese sold their Indian spices, silks, and muslins for one-half, or even one-third, of the prices charged by the Venetians.

SEC. 151. *Venetian Policy*.—The policy of Venice in its steadfastness and courage resembled that of Rome, and she had a similar aristocracy. The Venetian constitution was frequently changed, but the alterations were neither great nor violent. She suffered neither popular revolution nor foreign conquest from

her foundation in the fifth century till the final loss of her independence in the French Revolution, a period of fourteen centuries. She was the greatest maritime and commercial city of Europe for a period of five hundred years, and, in the duration of prosperity, few nations have surpassed her. When we consider the scantiness of her area, the poverty of her natural resources, and the small number of her population—never exceeding three hundred thousand in the city proper, which was the exclusive residence of citizens, and the only source of official power—we must admit that her success was remarkable, and that it implied much wisdom in her system of government.

SEC. 152. *Government.*—The political power of Venice was vested mainly in several hundred wealthy burghers, the principal merchants, ship-owners, bankers, and manufacturers, who, directly or indirectly, elected the officials, and determined the foreign and domestic policy of the government. The chief legislative authority was vested in a mass meeting of the burghers previous to 1172, but, after that, in the Great Council, a body consisting of four hundred and fifty members, elected indirectly by the burghers previous to 1319, in which year membership became hereditary, all the sons of great councilors being admitted for life to an equal vote and voice, at the age of twenty-five. There was no important change in the constitution of the Great Council from that time until Venice lost her independence. After the councilorship became hereditary, none except councilors had any voice in the government, and previously the burghers were not more than a fourth of the adult male population, and most of the poorer burghers were subject to the influence of the rich men. Venice called herself a republic, but her

political system is best defined by the term oligarchy. The high offices were restricted practically to sixty families.

The senate, elected annually, took general charge of the details of the administration, and of the foreign relations, including questions of peace, war, and treaties. It also elected the six members of the cabinet who were the advisers of the doge in all diplomatic affairs. The Council of Ten, elected annually by the Great Council, had supervision of all officials, with absolute authority over the judicial department, and sat as a court for the trial of high crimes. Its investigations and decisions were guarded with great secrecy, and the punishments were sudden and severe. Nobody was too high and nobody too low for its notice, and its name inspired great terror among those who had reason to fear it. The members were responsible for any abuse of their power to the Great Council, but none were ever punished for such abuse, nor was their authority diminished, or the Council of Ten abolished, as it would have been if it had given any great dissatisfaction to the majority of the nobles.

SEC. 153. *Aristocracy*.—This aristocracy was always prudent and generally able. It never fell under the control of one family, or of a small clique. It offered little encouragement to such tyrants as those who established themselves at Florence, Genoa, and Milan. It always had a good number of nobles, nearly equal in ambition, influence, and talent, all ready to combine against one who should attempt any usurpation for his own benefit. The nobles feared the overthrow of their aristocracy, and the establishment of a despotism in its place, as the greatest danger of the city, and they showed an extreme jealousy of their chief officials. The Great

Council elected the doge, the senate of two hundred members, and the Council of Ten. The doge held his position for life, was nominally the head of the government, and was commander-in-chief of the land and naval forces. His civil power was narrowly restricted; he could not correspond with any foreign power without the approval of his cabinet; he could not interfere in any judicial process; he could not own any property out of Venice, nor could he permit any object salutation.

SEC. 154. *Other Italian Cities.*—The other Italian republics were less fortunate than Venice, and they suffered by domestic revolution and foreign conquest. Pisa was, for many years, next to Venice, the chief maritime city on the Mediterranean. In 1282 she ruled over Sardinia, Corsica, and Elba, but two years later she was defeated by Genoa in a great naval battle, and she never recovered. Genoa was a formidable rival of Venice for one hundred and twenty years, and, after helping the Greeks to overthrow the Latin kingdom in Constantinople, in 1261, was rewarded by a monopoly of the trade of the Black Sea, to the exclusion of the Venetians. This monopoly was held for more than a century, and was very valuable, for at that time the trade of India went to the Black Sea. The Genoese besieged Venice in 1380, and were at one time confident of success, but they were themselves conquered. The government of Genoa alternated by revolutions from harsh oligarchy to wild democracy, and in the form of its government was one of the least stable of all the Italian cities. Florence fluctuated between aristocracy and republicanism, and she owes much of her glory to the judicious patronage bestowed on artists and authors by the noble family of Medici, which over-

threw the republic while pretending to make strenuous efforts for its preservation.

All the Italian cities, save Venice, were agitated by disputes and weakened by wars between the Guelf (or anti-imperial) party and the Ghibelline (or anti-papal) party. The German emperor and the pope were continually interfering in the affairs of Northern Italy, and the people had to take sides for or against them. Milan, Padua, Bologna, Mantua, Ferrara, Verona, Cremona, Pavia, Bergamo, Parma, Brescia, and Piacenza, like Florence, Genoa, and Pisa, had republican governments for a time, but suffered frequent revolutions, usurpations, and conquests.

CHAPTER V.

THE PRESS AGE.

SEC. 155. *Its Approach*.—The press age, or age of printing, continued three hundred and twenty years, from 1450 to 1770, succeeding that of Teutonic semi-civilization, which had reigned over Europe for a thousand years. In the new era civilization appeared on a larger field of action, assumed more varied forms, gained positions impregnable to the assaults of barbarians, discovered a new world, opened the oceanic routes to Asia, made many great additions to human knowledge, and prepared the way for the overthrow of despotism and superstition.

Soon after the reign of Charlemagne had restored order in France, Italy, and Germany, a profitable intellectual and commercial intercourse began to spring up between those countries on one side, and Spain and the Byzantine Empire on the other. Constantinople had preserved its independence, its literature, its records, and its traditions, and it was thus enabled to give many precious ideas to the trader who visited it from the West. Still more valuable instruction was obtained from the Saracens, who introduced windmills to grind grain, machinery to make paper, distillation, perhaps nitric and sulphuric acid, Hindoo numerals, algebra, and superior skill in surgery, mathematics, and astronomy, and the art of making sugar from the sugar-cane.

The schools of Cordova were the best in Europe for several centuries; and the Arabs, instead of burning the Christians who came to study, welcomed them. Soap and glass bottles, known to the ancients, had come into more common use; the stock of iron had increased; a new method of curing herrings was devised in the early part of the fifteenth century, and, larger seines having been knit, the fisheries were conducted far more profitably than before.

The first popular literature to arise in Christian Europe, after the Teutonic, was that of Provence, of Southern France, where the influence of the Spanish Arabs was potent—so potent, indeed, that the clergy demanded the extermination of the heretics, and the literature of Languedoc was obliterated by the blood of the people in the beginning of the thirteenth century. The next country to show literary activity was Italy, where Dante, Boccaccio, and Petrarch wrote, in the fourteenth century, and they gave to the Tuscan tongue its national preëminence. Two centuries earlier the Universities of Bologna, Paris, and Oxford, had been established, and each attracted immense crowds of students, Oxford having the almost incredible number of thirty thousand about 1250, if report be true. The first university in the German Empire was opened at Prague in 1350; and, when it became Bohemian and heretical, under the management of Huss, the German students left, and Leipsic arose. Padua, Naples, Toulouse, Montpellier, Cambridge, and Salamanca, had preceded Prague, and each exercised much influence in stimulating learning.

After the Turks had conquered Asia Minor and some of the European provinces of the Byzantine Empire, the Greeks began to migrate to the West, where

some of them established schools for instruction in the language and literature of Hellas, and, when a considerable migration of scholars followed the fall of Constantinople in 1453, they found a generous reception in many cities. With the help of the schools which they founded and the art of printing, such rapid progress was made that "The Revival of Learning" dates from 1450. About the middle of the twelfth century a copy of the "Pandects of Justinian" was found at Amalfi, and the discovery gave a strong impulse to the study of law. Oil-painting was invented in Flanders about 1420, or, if not invented, at least improved and brought forward in such a manner that, whereas it had previously been practised by few persons, and used only for rough work, it now became the favorite of artists, and was employed for nearly all pictures save those on walls.

SEC. 156. *Mariner's Compass*.—The magnetic needle had been known for centuries to the Chinese, but they used it only by placing it on a little wooden float in water, and, as it turned slowly, required constant care to prevent the float from fastening itself to the side of the bowl, and was otherwise very inconvenient and unsatisfactory; it was of little practical use in navigation. The Saracens brought it to Europe, and about 1275 a mariner of Amalfi, near Naples—his name is unknown, and his city has sunk into insignificance—put the little needle on a pivot in a box. These additions gave freedom of movement to the needles, accuracy of direction, and convenience of form for use at any moment. Thus the mariner's compass had its origin, the most important invention in the history of navigation. The business of the mariner took a new form. Previously the most important knowledge for

him was familiarity with the appearance of the coast at every point along his lines of traffic, so that he could always know his situation when he approached the land in the morning, or after a storm; but now he purposely avoided the intermediate shores, and sailed in direct routes across the seas and large bays toward his destination. The ancient pilot could learn his business only by numerous voyages and long experience, whereas the information most valuable to the modern mariner, and sufficient to guide him safely in voyages to the remotest portions of the globe, can be clearly conveyed in books. The season of navigation, previously restricted to four or five months, was now extended to include the whole year. Larger vessels were demanded, and more skill in ship-building was requisite. The forests of Northern Europe, and of the Atlantic coast of Spain and Portugal, increased greatly in value; and the shores of the Mediterranean, from which the large and straight trees suitable for masts and ship-planks, and conveniently accessible, had long before disappeared, were at a serious disadvantage; while the clouds and fogs of the North Sea and the Baltic lost their terrors when the sailors had their faithful needles as guides.

SEC. 157. *Gunpowder*.—Gunpowder was another ancient Chinese invention brought by the Saracens to Europe, and there speedily applied in such a manner as to work a wonderful revolution. The Asiatics made a plaything of it in fire-works; the Europeans used it in warfare, though a long time elapsed before it was of much practical value for any purpose save battering down walls. As the introduction of the mariner's compass stimulated ship-building, so the use of gunpowder stimulated the working of iron, and here again North-

ern and Middle Europe, on account of having greater supplies of wood suitable for charcoal, and better deposits of ore, took the lead of the slopes of the Mediterranean. Skill in the smelting, forging, and founding of iron, became more common, and the price of the metal was reduced. Before the middle of the fourteenth century, nearly all the iron was of the kind called wrought, but as cast iron was strong enough for cannon, and it was much cheaper, its use for ordnance became common, and iron-founderies supplied many wants which previously had met no supply.

SEC. 158. *Windows and Chimneys.*—In the twelfth century candles and window-glass had come into common use; and two centuries later chimneys were introduced. These inventions were especially valuable in Northern Europe, where the coldness of the winter, and the frequent rains, prevented the people from working in the open air during a considerable part of the year, and the length of the nights for half the year made artificial light important to them. In ancient Greece Aristotle had complained that the chief ill of life was the cold of winter, which in his time was supposed to be an effectual bar to the spread of civilization into the regions beyond the Danube. With the help of window-glass, chimneys, stoves, convenient artificial light, cheap fuel, and cheap clothing, civilization found a more attractive and extensive field in the moist, fresh, and fertile plains lying northward from the Alps, than in the dry, exhausted, and bare hills and valleys of Italy and Greece.

SEC. 159. *Portuguese Navigation.*—The Portuguese were the pioneers in bold ocean navigation, and for a long time they derived the chief profit from the invention of the mariner's compass. The possession of a

large stock of timber valuable for ship-building near the Mediterranean, which was still the main field for maritime commerce, gave them important advantages which they did not neglect, and a rapid succession of valuable discoveries rewarded their enterprise. They first turned their attention southward in the Atlantic, and in 1420 found Madeira, covered with a magnificent forest. There they erected the first saw-mills, which attracted considerable attention. Five years later they made the first charts of the eastern shores of the Atlantic. They reached the Canaries in 1424, the Azores in 1431, Cape Verd in 1460, and in 1485 they applied the astrolabe to the convenient determination of latitude at sea, and thus enabled their navigators to cut loose from the land.

SEC. 160. *Printing.*—The greatest invention since the alphabet was that of movable wooden types, made in 1436 by John Guttenberg, of Metz. The idea was original with him, though such types had been used for centuries in China; but the manner in which that language was written rendered the types much less valuable there than in Europe, where almost immediately after their discovery they made a revolution in literature and education. Peter Schœffer cast metallic type in 1452, and this was another great step forward. The cost of books was soon reduced ninety per cent. or more, and a secure foundation was laid for the new era of culture, and for its continuous development, with none of the interruptions which had been the misfortunes of the ancient civilization, and with no limit save those imposed by Nature to avert the increase or the activity of mankind. Printing is “the art preservative of all arts,” the chief foe of ignorance and superstition, the chief aid of civilization, and without exception the

greatest invention the history and authors of which are accurately known.

SEC. 161. *National Conditions*.—When modern civilization began, Italy was still the chief centre of wealth, intelligence, and commercial activity, and next to Italy were Flanders and Burgundy, whose cities were centres of large manufacturing industry and of considerable shipping. The free cities of the German Empire, confederated as the Hanse towns, had an extensive trade, and the social condition of Germany was better than that of any other part of Europe, and in art and arms the German Empire took the first rank. Germany, France, Italy, and Spain, were divided up into a number of principalities, which prevented them from having an influence or power commensurate with their population, wealth, and military skill; and England, though not divided into principalities, still had great nobles who overawed the crown, and who had to be overthrown before a compact nationality could be established. Spain, in addition to its division into petty kingdoms, was engaged in a warfare that had continued for seven centuries between the Christians and Mohammedans, and had prevented the Christian states from taking much interest in affairs beyond the limits of their own peninsula. Russia, Sweden, Poland, and Hungary, were hidden in obscurity; and Turkey, which was soon to become the centre of Mohammedan aggression, and the menace of Christendom, did not hoist the standard of the crescent over its capital till 1453.

SEC. 162. *Important Events*.—The middle of the fifteenth century ushered in the modern era with a rapid succession of important events. The surrender of Constantinople, and the submission of Greece, Roumania, Bulgaria, Servia, and part of Hungary, to the

Turks, indicated that the followers of the Arabian prophet would soon pay back Europe for the crusades. The influx of Greek scholars, fleeing before the Turkish conquerors, filled the universities of Western Europe with the spirit of ancient literature, not in harmony with monastic institutions and ascetic ideas. The printing-press was invented just at the moment when other influences had prepared the way for an intellectual revolution. The art of war was about to be changed by gunpowder; the art of navigation had been changed by the mariner's compass; the chief trade of Europe was preparing to swing round from the Mediterranean to the North Sea; and the Latin states were giving way before the increasing power and influence of the Teutonic nations. In the seventeenth century tea and coffee began to come into use in Europe, and, as they cheered without inebriating, they partly superseded the malt and distilled liquors; they gave greater attractions to the table and the home-circle; they strengthened the influence of woman, and contributed to elevate the tone of society.

SEC. 163. *Useful Arts*.—While the nations of Western Europe were consolidating their governments, and while the people were in a ferment of excitement about the reformation of the church, the discovery of America, the conquest of Mexico and Peru, and the opening of the new route to Hindostan, the useful arts kept pace with the progress in other directions. The first publication of annual almanacs, the composition of music in parts—previously only one score was written out—the introduction of algebra in the schools, the invention of double-entry book-keeping, the use of gunpowder for blasting rocks in mining, the increase of size of furnaces for smelting iron-ore, the improvement of iron-

founderies, the establishment of lines of regular couriers in France, the employment of decimal fractions in arithmetic, the invention of forks—which, however, came into use slowly in Italy, and were still a novelty in England at the beginning of the seventeenth century—all these events occurred between 1450 and 1500; and, in the next half-century, we observe the invention of pocket-watches, pins, amalgam mirrors, black-lead or graphite pencils, machinery for printing cloth, spring locks for muskets, the spinning-wheel (previously known in India, and saving ninety per cent. of the labor in making thread), and the diving-bell; zinc was discovered; the silk-trade was established at Lyons; the first treatise on navigation was composed; the first coaches were made, and four-wheeled wagons for common transportation began to appear. In the sixteenth century, the potato, maize, timothy, and various other pasture grasses, and tobacco, were introduced to European cultivation, and the turkey was added to the poultry-yard from America; and, at the same time, Peruvian bark, ipecac, sarsaparilla, chocolate, vanilla, and cochineal, were imported from Spanish America. Stamp-mills were invented to crush ores; the quicksilver-mines of Huancavelica, in Peru, were opened, and the method of separating silver from its ores by amalgamation was discovered. This process saved much expense in the reduction of many ores, and gave a great stimulus to the production of silver in the New World. Wooden bellows and the stocking-loom—previously hose were sewn together of cloth—were invented, and the cauliflower was brought to Europe from the Levant.

Much has been said about the lost arts of antiquity, but we have no clear proof of the loss of any valuable

art that ever became extensively known. The ligature of the artery was described by several surgeons in ancient Greece; was unknown for more than a thousand years; and was rediscovered by Ambrose Paré, a French surgeon, in the latter part of the sixteenth century. Limbs after amputation were thrust into boiling pitch, or seared over with a hot iron; but, at a critical moment, neither hot pitch nor hot iron could be procured, and Paré tried the experiment of tying up the artery. The experiment succeeded, and the lost art of arterial ligature was found again.

In the seventeenth century, Galileo, having heard of the telescope invented by Jansen, a Dutchman, made one of his own, applied it to astronomy, and, almost immediately, obtained conclusive evidence that the sun is the centre of our planetary system. Kepler followed close upon his heels, and discovered the three laws named after him, showing the mathematical relations of the planets to one another, in distance from the sun, and time of revolution. The microscope was invented a few years later, but its value was not appreciated until the nineteenth century. The tinning of iron, the ribbon-loom, the barometer, the air-pump, the force-pump (with an air-chamber), the fire-engine, fire-hose of leathor, stoves of brick and tile, the first efficient steam-engine (used only for pumping, and not of much value for that), and the reflecting telescope, were invented; the lyric drama or opera made its appearance; New Guinea and Australia were discovered; the speed of light was calculated; and, in 1687, Newton published his "Principia," announcing and proving the doctrine that the planetary system is held together by gravitation—one of the grandest discoveries of all time.

An important improvement was made in 1705, in

the steam-engine, which was still, however, of no use, save for pumping; and the first chronometer was produced in 1735. The British Parliament had offered one hundred thousand dollars reward for an instrument to determine longitude within one degree (seventy miles), and Harrison's chronometer came within twenty miles, keeping perfect solar time. The horizontal escapement for watches had been previously devised, and added much to their accuracy. The piano-forte was invented in 1717, and, since it was superior to any other instrument as an accompaniment to vocal music, with a range of seven octaves, furnished pure notes, and permitted one person to perform three parts at the same time, all with a full body of sound, it gave a great stimulus to musical education, and may be regarded as one of the main causes of the vast superiority of musical compositions of the last hundred years. The fly-shuttle, invented in 1738, facilitated weaving; caoutchouc, from South America, was introduced in the arts; mineral coal had been tried successfully for smelting iron in 1619, and began to come into extensive use for that purpose about 1740. The stereotype, previously invented, though very little used, in Holland, was invented independently, and first extensively used, in Scotland. The improved axe and axe-helve were invented by the English settlers in New England, and have been of vast service in opening the road for civilization through the dense forests that covered considerable parts of North America.

SEC. 164. *Art of War*.—The art of war underwent great changes in the Age of Printing. At the beginning of the modern era there was no well-established military system. The heavy-armed knights were generally considered the most valuable warriors, but this

high estimation was placed on them only because they had not been met frequently by a well-armed and well-trained infantry. The Swiss, armed like the Macedonian phalanx, were doubtless the best soldiers of Europe. The Spanish infantry, armed like the old Romans, ranked next to the Swiss, and with proper discipline would have been better. The English won most of their battles by the skill of their bowmen. The Turks and Poles trusted to a light-armed cavalry, which was very effective against hasty levies of footmen. Gunpowder was valuable for siege operations from the first, but was of doubtful value in the open field for several centuries. The cannons were carried on clumsy wagons, and could neither be turned nor elevated without much delay. The small-arms were clumsy and wild in their aim, and could not be fired without a fuse, for friction-matches as we have them were not then known. The wheel-lock, with which fire was struck by turning a wheel fastened to the musket, was invented in 1517, and superseded in 1650 by the flint-lock, and the bayonet was given to the French troops in 1670. Not until that time did it become clear that pikes, and armor, and the old system of warfare, must be entirely abandoned. Carriages upon which guns could be turned and raised, or depressed in a minute, were made. The art of fortification was improved. New systems of drill were introduced for both cavalry and infantry. The order of battle was made looser. The practice of hiring foreign troops, common in the sixteenth century, was generally abandoned in the next, and standing armies of subjects were provided, with decided improvement in discipline and in the spirit in which hostilities were conducted, though this spirit was still atrocious.

SEC. 165. *Royal Power*.—The increase of royal,

and the decline of feudal power, which had been apparent for several centuries in the latter part of the Middle Era, continued in the Age of Printing. By the middle of the seventeenth century, the sovereigns in Italy, France, Spain, and Germany, had become absolute—the nobles having lost their legislative powers. Denmark, in 1660, and Sweden, in 1680, adopted absolute governments, overthrowing the superior power of the councils of nobles. In England the monarchs attempted twice to introduce absolutism, and, having failed on each occasion, the government became far more liberal than any other. Holland, which had been subject to Spain, became independent and established an aristocratic government. Venice preserved its ancient aristocratic constitution.

SEC. 166. *Military Power*.—In the first half of the sixteenth century Spain was the leading realm of Europe. Its population was equal to that of either Germany or France; its agriculture and manufactures were little inferior; and, in the discipline of its soldiers, the ability of its generals, and in wealth and shipping, it was superior. England, with less than one-fourth of the population, could offer no rivalry. In little more than a century the military supremacy of Spain had disappeared, and that of France succeeded. In maritime commerce the Venetians had the lead till about 1500; then the Portuguese for a century, the Dutch for a century and a quarter, and finally the English. The course of naval power was nearly the same as that of maritime commerce.

SEC. 167. *Literature and Art*.—The Italians were the only nation who in the middle of the fifteenth century had recognized a national literary language. All the great books being in Latin and Greek, the bulk of

the people being neither wealthy nor intelligent, and Latin being familiar to all scholars, it was preferred as a medium for communication between them, and nearly all the books intended for learned men were written in it. It could not supply all the wants, and Italian became the fashionable written tongue, and so remained until the latter part of the seventeenth century, when French superseded it. In the beginning of the sixteenth century the richest literature of Europe was that of Italy; in the latter part of it, Spain and England were rich in authors; and a century later the glorious era of French literature began. While the bright intellectual epochs of other countries have been of brief duration comparatively, those of England and France have continued for centuries with great and almost steady increase in their splendor. The art of oil-painting rose to high excellence under the patronage of the popes in Italy, in the first half of the sixteenth century, and then was cultivated for a time with most success among the Dutch. In nearly every case, a period of great military success or commercial prosperity was followed by literary and artistic activity. The pouring of wealth into Italy by pilgrimages to Rome, from the thirteenth to the sixteenth centuries, awakened the genius of Dante, Boccaccio, Petrarch, Ariosto, Tasso, Macchiavelli, Guicciardini, Raphael, Buonarrotti, and Da Vinci. Camoens, the only great Portuguese author, wrote while his country was master of the trade of Asia. Soon after Spain became a leading power, Cervantes, Lope de Vega, Luis de Leon, Ercilla, Herrera, Las Casas, Zurita, Mendoza, and Mariana, began to write, and no such collection of authors has thrown a lustre over Spain in her decline. If the character of the English language had been fixed in the fourteenth

century, and the population had been large, their literature would no doubt have already been brilliant, for the circumstances were favorable otherwise, but it was not until the reign of Elizabeth had given additional glory to the nation that Shakespeare and Bacon gave wings to Anglo-Saxon genius. The Dutch were prosperous, and had a multitude of eminent law-writers and artists. The Irish were oppressed, and had no authors. Poland, Bohemia, Hungary, and Germany, suffered terribly by war, and had little literary activity.

Among the great events of the Age of Printing are the introduction of general education in Holland, Scotland, and the American colonies. The order requiring every Scotch parish to maintain a school was adopted in 1697, and in the next century it bore splendid fruit, giving to that rugged and cloud-covered little country a constellation of great men relatively unrivaled elsewhere in modern times, and only to be equaled by Athens in her most glorious period.

In 1751 the French "Encyclopædia" began to appear, and, though it has now lost its interest, as a convenient summary of knowledge it was vastly superior to any thing else then in existence. Newspapers and literary journals were established successfully in various countries, but soon prospered more in England than elsewhere, because there were more population than in Holland, and more freedom than in France, Germany, Spain, or Italy. The *Spectator*, a literary weekly, was a great success in the early part of the eighteenth century; but the cabinet was unwilling to submit to public criticism, and an act was passed levying a stamp tax on newspapers, giving a severe check to cheap periodical literature, and it did not recover until the tax was abolished about a century later.

SEC. 168. *The Reformation.*—The Protestant Reformation, or schism, is the most important event of the kind in history. The attempts of the Albigenses, Wycliffites, and Hussites, to reform the Catholic Church had been local in their character, and had completely failed. The corruption was so gross that plans of reform had been proposed by many men in the Church, but their comprehensiveness excluded them from favor, and, when at last the change came, it was started by a man who had no idea when he began of the point at which he would end. He became involved in a dispute about a question of ecclesiastical discipline, and it led him on until he had renounced the authority of Rome, and had repudiated many of its dogmas. The fact that Luther was an Augustine monk may have stimulated him in his disposition to attack the sale of indulgences which had been intrusted to the rival order of the Dominicans, and in his district to an unpopular and disreputable fellow named Tetzel, who was charged with spending part of his gains in gross and notorious debauchery.

SEC. 169. *Indulgences.*—The doctrines of the Catholic Church in reference to indulgences are that sin subjects the offender to temporal and eternal punishment; that the temporal punishment will be inflicted in this life or in purgatory; that the church has the authority (deduced from Matthew, ch. xviii. v. 187), to absolve the offender from guilt, and to release him from punishment; that indulgences may be granted, not to absolve an offender from guilt, nor to save him from eternal punishment, but to protect him from temporal punishment; and this protection was not to be given for any future sins, nor was it to take effect until after the sins had been confessed and absolution granted.

This theory, however, was not understood by many of the poorer classes, who looked upon an indulgence as an insurance against any punishment for their sins after death, and their opinion was encouraged by the language of the certificates of indulgence, and by the harangues of their venders. One of Tetzels indulgence certificates says:

“I by his” (Christ’s) “authority, and that of his blessed apostles Peter and Paul . . . do absolve thee first from all ecclesiastical censures, in whatsoever manner they may have been incurred, and then from all thy sins, transgressions, and excesses, how enormous soever they may be, even from such as are reserved for the cognizance of the Holy See; and, as far as the keys of the Holy Church extend, I remit to you all punishment which you deserve in purgatory, and I restore you to the holy sacraments of the church, to the unity of the faithful, and to that innocence and purity which you possessed at baptism, so that, when you die, the gates of punishment shall be shut, and the gates of the paradise of delight shall be open.”

SEC. 170. *Political Influences*.—Luther denounced these certificates as licenses to sin, and declared that their sale was contrary to the interests of religion and the church. He was encouraged in his course by many of the monks, clergy, people, and nobles, in his vicinity. The movement soon assumed a magnitude not to be understood without taking into account other influences besides those of zeal for the true faith. The people are slow to abandon long-established religious opinions and practices, unless their passions unite with their reason to demand a change. Many passions were aroused against Rome at the beginning of the Reformation. The princes resented the heavy ecclesiastical

taxes and the claims of superior authority made by the pope; the people were dissatisfied with the vast accumulation of property in the church; and many of the clergy were scandalized by the corruptions of Rome, the exclusion of the Germans from the highest offices in the papal court, and the domineering tone used by the Italian churchmen. Luther's appeal to a general council, after he had been condemned by the pope, was generally approved, but thirteen years passed between his first attack on indulgences and the meeting of the council; and, in the mean time, he and many of his followers had advanced so far that they had given up all idea of submitting to papal authority. Although he died in 1546, only nineteen years after the beginning of his controversy with Tetzl, he lived long enough to see more than half of Europe repudiating the ecclesiastical authority of Rome. The Northern Germans, Scandinavians, and many of the South Germans and Slavonians, in the German Empire, had become Lutherans; while the Scotch, Swiss, and Dutch, and many of the Flemings, English, and French, were followers of Calvin and Zwinglius; and the English, who were not Calvinists, accepted the doctrines of the English Church, which had no notable reformer to lead it. Bavaria, Bohemia, the archduchy of Austria, Alsace, Lorraine, and various large districts of France, afterward almost entirely Catholic, were then predominantly Protestant.

SEC. 171. *Religious Questions*.—While the Protestants disagreed among themselves (and many sects and many differences of opinion on minor points among leading sects are not mentioned here), and hated each other almost as bitterly as they did the Catholics, and persecuted each other when they had the power, yet they all agreed that the Bishop of Rome has no right-

ful authority over Christians ; that the Church of Rome has no exclusive authority to interpret the Scriptures, or to dispense salvation ; that the Bible is the sole source of the true faith without reference to tradition, and that it should be placed in the hands of the people, in their vernacular, for them to read. They should not only read it, but interpret it according to their private judgment. Yet they must study with a devout spirit, with faith in Jesus, and in the inspiration of the Scriptures. Luther preached that men are justified by faith, and they cannot have a proper faith until they have searched the Gospels and found there the grounds for belief. Yet, while he considered the use of reason necessary to that belief indispensable for salvation, yet that freedom of thought which would abandon the Bible was abhorrent to him, and he denounced reason as "the bride of the devil." He did not claim that his church had exclusive possession of the faith acceptable to God, but he considered church-membership desirable as an aid to devotion. The German and Scandinavian Protestants became Lutherans, while the German-Swiss Protestants followed Zwinglius, whose doctrines were similar to those of Luther, but he allowed more authority to reason, admitted a higher dignity to human nature, and demanded less power for the clergy.

Calvin taught that salvation was not earned by faith, and was entirely undeserved by the depraved nature of humanity, but was granted to mankind, without consideration, by the grace of God, on account of his infinite love, and in accordance with the inscrutable decrees of predestination. It had been preordained from all eternity that certain persons should believe the truth and be saved ; and that others should adhere to error, and should be condemned to everlasting perdition.

Catholicism teaches that all men are condemned to eternal punishment in a future life, but they may escape and secure admission to the mansions of bliss by the mediation of the true church which was founded by St. Peter at Rome, and has been maintained by his successors in that bishopric, who have ever held by apostolic succession, and can release from purgatory, admit into heaven, or condemn to hell, and without whose blessing none can be saved. The pope is the representative of Jesus on earth, and is infallible in his decrees issued, in his official capacity, upon questions of faith and morals.

These were the questions on which Europe was deluged in blood.

SEC. 172. *Protestantism legalized*.—Besides the national prejudices and interests that favored the progress of the Reformation, many peculiar circumstances contributed to assist or protect it. The current opinion that heresy and infidelity would be punished by infinite and eternal suffering after death, led to the practice of using force to prevent the spread of such dangerous opinions, and all the sovereigns of Christendom acknowledged the propriety of this practice when Luther commenced his attacks on Rome; but these attacks were likely to be of advantage to many princes, and they were unwilling to punish a man working for their benefit. In Germany, where Protestantism took its start, the emperor was Charles V., lately placed on the throne, holding a limited power, and fully occupied with other matters that required his attention, so that he could not, without injustice to his administration, undertake a war on the Protestant princes, when it became evident that a permanent and serious schism in the church was likely to occur. Besides, his character

and his relations with the papacy during the early years of his reign were favorable to a policy of toleration. He was neither bigoted, cruel, nor hasty; he was strenuously opposed to any priestly interference in the political affairs of his empire, and he was compelled to defend himself by arms against a coalition formed by the pope. In 1527 his army, composed to a considerable extent of Lutherans, took Rome by storm, and subjected it to horrible pillage, the sack having been one of the most cruel and disastrous in modern times, though there was little slaughter. While this army was marching to Italy, an imperial Diet, held at Spires, adopted a resolution that the princes of Germany might determine the relations between church and state in their respective dominions, according to their own discretion. In other words, each prince might favor any form of Christian faith, and persecute or tolerate the others. Under this resolution, Lutheranism obtained a legal existence in Germany, and was soon recognized as the creed of the government in Saxony and Hesse, and in 1535 as the creed of Würtemberg; but soon afterward the tide of political influence turned, and, though it often fluctuated, its general drift in Continental Europe for two hundred years, from 1540 till 1740, bore very heavily against Protestantism, which would have been extinguished in blood and fire a dozen times over if new powers, unknown at the time of the Reformation, had not arisen in Holland, Sweden, England, and Prussia, to vindicate the sacred rights of religious and political liberty.

The Protestant sects hated each other bitterly, but, as no one of them was very formidable, and the chief enemy of each was the Catholic Church, they frequently united against it; and, for a century, a large part of

Europe was engaged in warfare, undertaken on account of the difference of opinion between Catholics and Protestants.

SEC. 173. *Witchcraft*.—The belief in the frequency of witchcraft as a cause of disease and misfortunes of many kinds, in the ability of the victims to discover the wizards and witches who persecute them, and in the propriety of punishing the offense by death, prevails in all states of society, even the most enlightened, but never led to such fearful results as in the last half of the sixteenth century. Between 1580 and 1595 eight hundred witches were burned in Lorraine, and it is calculated that, between 1200 and 1700, one hundred thousand persons were executed in Germany on charges of witchcraft. The offenses specified were numberless. The death of domestic animals, epileptic fits, diseases and deaths of persons, the loss of money, the failure of crops, the barrenness of women, the breakage of dishes, the tearing of clothes, and other serious and trifling events, were attributed to witches; and the courts had no difficulty in getting satisfactory evidences of guilt, and did not hesitate to pronounce sentence of death. The witch-executions prevailed like epidemics; a period of excitement against witches in one province often extending to those adjoining it, and prevailing until the available subjects were exhausted or the prosecutors disgraced, when a season of quiet followed.

SEC. 174. *Skepticism*.—The corruption of the Catholic clergy, and the excesses of ecclesiastical rule, had provoked animosities which favored the rise and spread of skeptical opinions, and prevented the churches from making converts in Europe. After the middle of the seventeenth century, it became evident that the chief religious contest was not between Catholicism and Prot-

estantism, but between both and skepticism. Bayle published his "Biographical and Historical Dictionary" about the beginning of the eighteenth century, and it had much influence in stimulating the skeptical tendencies of the time; and after him came Voltaire, who became the intellectual leader of the age. The political relations of the Catholic Church in France excited his animosity, and he attacked Christianity with vigorous argument, bitter sarcasm, and brilliant wit, in a multitude of attractive books for half a century. He and his followers, Montesquieu, Diderot, D'Alembert, Helvetius, Holbach, Rousseau, Buffon, Raynal, and others—some of whom would have resented the idea of being called his followers—made up the leading writers of France, to which all Europe then came for inspiration, and the result was that the educated classes everywhere became skeptical. Frederick of Prussia, Joseph of Austria, Catherine of Russia, Charles III. of Spain, or at least Aranda, his prime-minister, Turgot, prime-minister of France, and Pombal, prime-minister of Portugal, able and enlightened statesmen between 1760 and 1780, were all disciples of Voltaire. In Germany Lessing, and in Great Britain Hume, were open enemies of Christianity.

SEC. 175. *Calas*.—Voltaire was an ardent laborer for the abolition of torture, religious intolerance, and of witchcraft persecutions, and the powerful sympathies which he aroused on these points were of great assistance to him in other matters. In 1762 a young man named Calas committed suicide at Toulouse. The father, a Protestant, was falsely charged with having murdered his son to prevent him from turning Catholic, was by judicial order put to the torture, broken on the wheel, and killed. His widow and children were

also tortured, but allowed to escape alive. Voltaire opened his house to them at Geneva, and began war on the court which had murdered the husband and father, and the bigots who had sustained the court. His eloquence and his invective attracted the attention and commanded the admiration of Europe. He demanded a reversal of the judgment, and a solemn declaration by the court that Calas had been judicially murdered. To this cause he devoted three years of labor, with no expectation of pecuniary reward, and he says that he scarcely smiled without reproaching himself while the terrible injustice done to the Calas family was not punished, nor even admitted. But at last the government became conscious that Voltaire must be silenced by compliance with his demands, and the court confessed its own guilt and declared the innocence of Calas. Superstition and cruelty had suffered terribly before such confession could be placed upon an official record.

SEC. 176. *Rose Wars*.—England was devastated from 1455 to 1485 by the Wars of the Roses, as the contending houses of York and Lancaster (the former the white and the latter the red rose) were called. The contest ended with the triumph of Henry VII., a Lancastrian, married to a princess of York, and he was the first of the Tudor dynasty, which kept the throne till 1603. The high feudal nobility suffered severely in the Wars of the Roses, and the Tudors enjoyed much greater power than either their predecessors or their successors. Henry VIII., having married a Spanish princess and got tired of her, applied to Rome for a divorce, but was denied. The charges of infidelity made against her were not proved, and besides, the pope was not willing to offend her brother, Charles V.

SEC. 177. *English Reformation.*—Henry could not divorce his wife without repudiating the authority of the pope, and therefore he abandoned Catholicism and established a new form of faith, called the Church of England, Protestant in its main features, with the sovereign for its head. His pleasure governed the whole movement in its official character. Parliament obeyed all his commands, and the people generally seemed to sympathize with their monarch, and to keep pace with him in his change of belief. He died leaving Edward, whom his eldest daughter Mary, by his Spanish wife, succeeded to the throne. She was Catholic, and was disposed to drive the people back into Catholicism by force; but her reign lasted only eleven years, and, as she had little talent for governing, or for selecting advisers, she made little progress in her scheme though she executed several hundred Protestants.

She was succeeded by Elizabeth, Anne Boleyn's daughter, whose legitimacy and right to the throne were denied by the Catholics, and who was driven by that consideration, and perhaps also by sincere belief, into Protestantism, which had the protection and aid of her long, able, and prosperous administration. Soon after she ascended the throne in 1558, the religious troubles began in Flanders, and the Flemish Protestants, in search of new homes, found a generous reception from sovereign and people, a secure refuge, and a profitable opening for business in England, and they contributed much to develop the backward resources of that country. Thirty thousand of them crossed the Channel in a few years after 1565. The prudent assistance given to the Dutch, German, and French Protestants, and the refuge offered to them in case of defeat at home, added much to the influence of England

abroad, but attracted the attack of the Invincible Armada, the defeat of which, though due mainly to storms, placed England among the leading naval powers.

SEC. 178. *Rebellion of 1642.*—After the death of Elizabeth, in 1603, the crown passed to James, King of Scotland, the first of the English Stuarts, by whose accession the two countries were united under one crown, and a century later they were consolidated. The Stuarts were bad kings, and they suffered much for their crimes and follies. James was humiliated by Parliament, Charles I. was beheaded, Charles II. spent his youth in exile, and James II. was dethroned. In 1642 a great rebellion was provoked by the attempt of Charles I. to levy taxes in defiance of Parliament, and it resulted in his defeat, capture, and execution. The leading general on the parliamentary side was Oliver Cromwell, who, after the overthrow of the royal cause, assumed dictatorial powers, and showed genius not less remarkable in his civil administration than in war. He and his chief supporters were Puritans, a sect nearly akin in their opinions to the Presbyterians of the present day. They were extremely zealous in their faith, and governed the realm in accordance with their opinions, but resorted to no religious persecution.

SEC. 179. *English Shipping.*—Cromwell contributed much to his country's greatness by the passage of the navigation act in 1653, forbidding the importation of foreign merchandise in any foreign ship, unless it belonged to the country which produced the merchandise. Previously the Dutch had supplied the English market with nearly all its imports, and suddenly they found themselves cut off. Their wealth lay in their trade, the reduction of which was the surest method of weakening them. In commercial shipping

the Dutch were far ahead of the English, but in naval power the two were about equal. The Navigation Act soon built up the British mercantile marine, and the government protected it. The Dutch, threatened by the French and Spaniards, did not dare to defy England, and soon had to allow the English to take a large part of the trade of Asia. Manufactures arose in the British isles with shipping. In 1685 Louis XIV. revoked the Edict of Nantes, and half a million refugee Protestants, including the most skillful mechanics and manufacturers of France, crossed over to England, which they helped to enrich.

SEC. 180. *Revolution of 1688.*—After the death of Cromwell, the Stuart dynasty was restored, and James II. made an effort to reëstablish some of the despotic practices for which Charles I. had paid with his head. James made a still greater mistake when he indicated his preference for the Catholic religion; and, since the national interests, as well as prejudices, were on the Protestant side, the people expelled him and invited William of Orange to occupy the throne. The invitation was accepted, but the Dutch prince never felt at home in his new place, and he was subjected to so many crosses that he was several times sorely tempted to withdraw from his bargain. His situation as a foreigner, placed in his position by Parliament, the successor of a dynasty which, in less than half a century, had twice lost the throne for defying the people, was favorable to parliamentary rule, and the opportunity was not lost.

SEC. 181. *Responsible Government.*—The system called "responsible government" grew out of the circumstances of the case. The principle was adopted that the cabinet must be acceptable to the Lower House,

and must be selected from its members. In other words, it is a committee in sympathy with the majority: when it loses the confidence of the House, it must resign, so that a new cabinet can be chosen to represent the dominant party. The sovereign can do nothing except under the advice of the ministry, and they alone are responsible. This is the British idea of constitutional government. The monarch is merely an ornamental figure-head in the administration, having less influence on the management of public business than any one of a dozen members of Parliament, and far less influence and responsibility in his government than the Presidents have in the United States. There has been no famous veto in England since the Revolution of 1688; and the refusal of the king to sign any important bill would be a violation of the constitution. Before the expulsion of James II., Parliament adopted the Habeas Corpus Act, providing that any person deprived of his liberty might, on his own petition, or that of a friend, demand a hearing before a judge, who should examine into the authority for the imprisonment, and, if illegal, set him free. This act gave better protection than any previously known against arbitrary arrests. It struck a fatal blow at one of the most common forms of tyranny, and, since its enactment, the Habeas Corpus Act has been regarded as one of the most precious guarantees of English and American freedom.

England took part in the Spanish War of the Succession from 1702 to 1711, ending in great loss and humiliation to both France and Spain, and great expenditure to Holland; and again, she waged an extensive war with France from 1756 to 1763, when she took Canada and Hindostan, obtained control of the bulk of

the trade of Asia, and strengthened her supremacy over the seas. At the end of the war she had become the leading power of Europe, and was the envy and admiration of other nations.

SEC. 182. *English Colonies.*—The English colonies in America adopted not only all the liberal principles of the mother-country, but many not known there. There was no king in the colonies, nor did any noble families establish their titles there. The country was too poor at first to attract the British aristocracy, and, after wealth had accumulated, there was no room for them. The land had been divided up among the people, who besides were republican in spirit. They elected all their colonial officers except the governors; every town and county managed its own affairs. Never had the distribution of power among the small districts and among the people been so complete. The governor had more power in the colony than the king had in England, but there the Parliament was elected by one-tenth of the adult males, and the House of Lords was a check on the popular chamber; whereas, in the colonies, every free white man was a voter, and all the legislative power was in the hands of the representatives of the people.

SEC. 183. *France.*—France, in 1450, had not two-thirds of its present area, and the central government had little control over much of its territory. The principalities of Normandy, Guienne, Provence, Anjou, Maine, and Brittany, were acquired and consolidated with the nation at various times from 1466 to 1491; and about the same time the privileges of the high nobles were limited, so that the kingdom suddenly acquired great political influence and military power. But the sovereigns lacked ability or discretion, and they

wasted the blood, treasure, and energy of the people in foolish and vain attempts to conquer Italy. The French armies, having advanced to Naples at the end of the fifteenth century, were driven out, and, for more than a quarter of a century, they continued their warfare until Francis I. was defeated and captured at Pavia. He wrote to his wife that all was lost save honor, and then concluded a treaty with the deliberate and avowed purpose of violating his solemn promises made in it as considerations for his restoration to liberty.

SEC. 184. *Religious Wars*.—The exhausting and humiliating wars with Spain and Austria, under Charles V., were scarcely ended before the religious wars broke out, and they were still worse. The French people were divided between Calvinists and Catholics, the latter being to the former probably as two to one. The court was corrupt, and, for a quarter of a century, the sovereigns were fools. A war raged between the two hostile sects for thirty years, from 1562 to 1592, with intervals of truce or exhaustion, and with many incidents of horrid cruelty. The most atrocious massacre recorded in history was perpetrated on the night of the 22d of August, 1572, when seventy thousand Protestants were surprised and slaughtered. Among those who perished on the occasion were many of the ablest generals and statesmen of France. The war ended with the submission of the country to Henry IV., who had been a Protestant, but, to secure his throne, he pretended to become a Catholic. In 1598 the Protestants threatened to revolt on account of some of his measures, and he quieted them by issuing the Edict of Nantes, which authorized the holding of Protestant worship in certain places, under certain conditions. For instance, it might be held on the estates of great Protestant

nobles ; on the estates of small Protestant nobles, only in their dwellings, and with an attendance of not more than thirty persons ; but not within the domain of any great Catholic noble, and in certain towns, including one in each judicial district. It was forbidden in Paris, in all places within fifty miles of Paris, in Rheims, Toulouse, Dijon, Nantes, and various other cities. The Calvinists were, besides, required to pay tithes to the Catholic clergy. Hard as these provisions were for the Protestants, they restored peace and power to the land. France rapidly rose in consideration and influence. Henry was a man of comprehensive and liberal mind, and, soon after his death, the power passed into the hands of Richelieu, an able statesman, who, though a cardinal, governed the realm on political principles, and, though a Catholic, adhered to the Protestant policy of the great Henry. In the Thirty Years' War, Richelieu took part with the Swedes and German Protestants, crippled Germany, and left France without a rival, as the most populous and most powerful state of Europe. His administration, as a whole, was the most successful in the annals of the country. It was stained by little civil war, and the foreign wars cost little to the government or people, and secured great results for France. Unlike Louis XIV. and the two Napoleons, he undertook no more than he could accomplish.

SEC. 185. *Leadership and Decline.*—Toward the close of the seventeenth century France was unquestionably the leading country of Europe. Spain had been ruined by her wars with the Dutch, and Germany by the Thirty Years' War ; the Dutch had not the territory or population commensurate with their statesmanship or their commerce ; the English were just beginning their career of prosperity ; and Sweden and

Poland had seen their best days. France called herself "the great nation," a title fairly deserved, for she had three times the population of Great Britain, and her intellectual preponderance over every Continental nation was still greater. Other states were superior to her in foreign commerce, in naval power, and in many minor points, but all acknowledged her general superiority. Her tongue now began to supersede the Italian as the fashionable and diplomatic language, her manners and her fashions in dress were accepted everywhere; her people became the models of politeness; and her literature soon led the thought of the world. The nation produced a succession of great generals, and the French armies obtained a high reputation for courage and discipline.

The employment of the armies of France to defend the claim of a member of the Bourbon family to the crown of Spain was a terrible mistake, and the country was saved from dismemberment only by the discord that arose among the allies, when the Austrian claimant of the Spanish crown fell heir to the empire of Germany. In 1756 France became involved in a war to prevent Prussia from seizing Silesia, and, as the English were on the other side, they took the French possessions in Canada and Hindostan, and thus France was deprived of her chief foreign colonies, and of the prospect of ever being able to establish others of importance. Her navy was ruined, her hopes of building a commerce with Asia blasted, her national credit seriously diminished, and she was reduced unmistakably to an inferior position with reference to England as a commercial nation, and as a military and naval power.

SEC. 186. *Spain*.—About the beginning of the sixteenth century Spain became the leading nation of

Europe, and retained her position for a century or more. Her rise was very rapid. In 1465 her present territory had been divided under the Christian monarchs of Castile and Aragon and the Mohammedan caliph of Granada ; but in 1492 the Moorish power was overthrown, and Spain was united under one crown, though there were several separate administrations and strongly-marked divisions of dialect, customs, and provincial feeling, much of which prevails to the present day. The native of Catalonia will, in frequent instances, deny his Spanish nationality ; he is nothing but a "Catalan," and the national tongue of Spain is called not Spanish but "Castellano."

The success of Portugal, in her maritime ventures along the western coast of Africa; stimulated Spain to provide three small vessels—the largest of only a hundred and forty tons—for Columbus, who had previously spent ten years in trying to induce various sovereigns to send an expedition across the Atlantic. He supposed that, by sailing westward for two months, he could reach India. In 1492 he found the Bahama Archipelago, which he believed to be near India or Hindostan, and therefore the name of "West Indies" was given to the islands, and that of "Indians" to the natives. His opinion was accepted as correct by the Europeans, and a ferment of excitement arose about the vast benefits to be derived from the new route to the great centre of Oriental wealth, but the anticipated profits were not obtained by the first generation of discoverers ; and it was not until Magellan's voyage round the globe in 1521 that the distinction between America and Asia was understood. About the same time the conquest of Mexico began to repay the expenditures incurred by Spain in sending out the previous expedi-

tions and voyages; and soon after the conquest of Peru, in 1532, the New World became a source of vast revenue to the Spanish crown and people—that is, vast for that age, when the money values of land, merchandise, and labor, were far less than at present.

Philip II., King of Spain, inherited dominion over the Netherlands, and his attempts to extinguish Calvinism there led to a revolt, which began in 1568, and continued for forty years, closing with a virtual recognition of the independence of the United Netherlands.

SEC. 187. *Conquest of Mexico.*—The conquest of Mexico was accomplished in a manner that contributed much to raise the national fame and pride of Spain. Cortez sailed from Cuba with six hundred and eighty Spaniards, sixteen horses, and fourteen cannon; but, when he left Tlascala to meet the forces of Montezuma, he had only three hundred and fifty Spaniards, having lost some by war and disease, and left a few behind. The Aztecs supposed the white men were a divine race, allowed them to march into the city of Mexico, treated them well, and remained at peace with them, until Cortez went to the coast. While he was absent his lieutenant Alvarado practised such cruelty that the Aztecs resorted to war. When Cortez returned, he had twelve hundred and fifty Spaniards, and with these, and seventy thousand Tlascalalan allies, he conquered the Aztecs, who brought three hundred thousand soldiers into the field, in a war which lasted several years. The contest was conducted with the most desperate courage on both sides; but the fire-arms, horses, and superior training of the Spaniards gave them the victory. Large amounts of gold and silver were obtained from Montezuma before hostilities broke out; so much, in fact, that great disap-

pointment was expressed at the smallness of the sums found in the city when it was subjected to the sack. The annual production of the precious metals was small, but, as there was no loss by exportation or coinage, and all the splendor of the country was centralized at the city of Mexico, the most extravagant expectations were excited in the minds of the Spaniards by the abundance of the gold and silver given to Cortez by Montezuma as presents, and by the large size of the shields, breastplates, goblets, dishes, and chains, and the elegance of the workmanship, surpassing any thing known in Spain. The incorrect inference was drawn that the quantity of the precious metals must be much greater in Mexico than in Europe, where they were distributed more generally, and extensively used as coin.

SEC. 188. *Conquest of Peru.*—The conquest of Peru was similar in its course and results to that of Mexico. A small band of Spaniards conquered vast armies of natives, and obtained immense treasures which had been accumulating for centuries in the capital of the Incas. In both countries, the conquering leaders exhibited remarkable military genius, personal courage, undaunted perseverance, political tact, fanatical zeal, and gross cruelty.

The glory and wealth acquired by the Spaniards in Mexico and Peru reacted powerfully on Spain. A large proportion of her most enterprising young men crossed the ocean in search of fortunes. They went as soldiers, sailors, and plunderers, not as farmers or permanent settlers. Taking few women with them, they generally married Indian women, or cohabited with them, and thus populated their colonies with a mixed race. Mexico at the end of three hundred years had

not so many inhabitants of pure white blood as the English colonies of North America one hundred and thirty years after their first permanent settlement. The half-breed children, trained up by native mothers, were inferior in intelligence, enterprise, and industry, to the native Spaniards, and Spain was steadily drained of her young men for centuries to supply soldiers, priests, and officials, who did not come back from her remote and wide-spread possessions in the New World.

SEC. 189. *Iberian Union*.—In the middle of the sixteenth century the Spanish generals and soldiers were the best of the age. The Spanish sailors were not equal to the Dutch and Flemish, but Holland was a little tributary province, and the idea that she would become a powerful, independent maritime nation was not then entertained. Spain and Portugal divided between them the territories and the trade of the East and West Indies. Spain had all America from Florida southward, save Brazil, while Portugal had Brazil, and the entire southern coast of Asia, with the rich trade of Hindostan, Ceylon, China, Japan, and the Moluccas. Their political dominion was established by the submission of the native princes at the chief sea-ports, and by numerous fortifications. They alone had ships built for the trade, and sailors familiar with the danger and needs of the voyage. And the prospect for the perpetuation of their commercial monopoly, and dominion over America and the Moluccas, and their predominant political influence over Hindostan and China, seemed to be secured in 1580, when Portugal and Spain were united, and strengthened in their union by their exclusive control of the mines of America, and of the marts of Asia.

SEC. 190. *Decline of Spain*.—But this national in-

heritance of incalculable value was soon lost by the ignorance and fanaticism of the Spanish monarchs, and in 1625 the Dutch had possession of the best trade of Hindostan, China, and the Moluccas, and they drew from Spain much of the silver of the New World. Mexico and Peru were not taken by the Dutch or English, who had better use for their young men, and could obtain the profit of those colonies more cheaply by trade than by conquest. The American mines, rich as they were, were of little benefit to Spain. They gave her neither population, wealth, popular enlightenment, manufactures, nor any great monument worthy of her position as mistress of the world. They poured their treasures into her lap, but she squandered them in her atrocious efforts to crush civil and religious liberty in France, England, Holland, Germany, and at home. The Moriscoes, or Spanish descendants of the Moors, claiming to be Christians, were forbidden in 1566 to use their hereditary tongue, music, dances, or proper names, and the refusal of several small mountain districts to submit was followed by a civil war in which the rebels were severely punished and completely subdued. But the Moriscoes were not exterminated, and in 1609 an order was issued for the banishment of those suspected of being Mohammedans at heart, and seven hundred thousand were driven out under circumstances of merciless harshness. In the middle of the seventeenth century Spain was intellectually and morally the lowest country of Europe. Her people were ignorant and fanatical, her government tyrannical and cruel. The former liberties of Castile and Aragon had been extinguished in blood; her interior traffic was crippled by absurd taxes amounting to thirty per cent. on the sums invested in trade; her manufactures were ruined

by oppressive monopolies ; capital was driven away by arbitrary taxes, forced loans, and repudiation of national debts, and a large part of the property of the country was in the possession of the Church. Literature had taken a start about the middle of the sixteenth century and produced some works of high merit, but soon flickered out, and since 1600 Spain has produced no first-class book in any important branch of knowledge, nor has she contributed one important invention or discovery to the possessions of humanity.

Portugal had revolted in 1641, but her independence was not recognized till 1668 by Spain, which held at that time Naples, Sicily, Milan, Belgian Flanders, and Franche-Comté, which last was a considerable district on the western boundary of Switzerland, now belonging to France. But the country was impoverished by almost constant warfare and bad administration, notwithstanding the large influx of the precious metals from Mexico and Peru. In 1701 a dispute arose about the succession, and a French Bourbon, the grandson of Louis XIV., was placed on the throne, to the great dissatisfaction of the majority of the Spanish nobles and people. The English, Dutch, and German Governments formed a coalition to expel him, the first promising to furnish four thousand men and their fleet, the second, one hundred and two thousand men, and the third, ninety thousand men. These forces occupied the French armies near the eastern and northern borders of France, while the work of expelling the French from Spain was mainly intrusted to the Spaniards. The allies were fighting to place Charles, Archduke of Austria, on the Spanish throne ; but in 1711 he succeeded unexpectedly to the imperial crown of Germany, and, as England and Holland had no wish

that he should rule over Spain also, they suddenly abandoned his cause and made peace, acknowledging the Bourbon claim to the Spanish crown, without obtaining the benefits which their great military and naval successes entitled them to expect. Spain was severely injured by the war in her territory, and her relative position in Europe continued steadily to decline.

SEC. 191. *Portugal*.—After the middle of the fifteenth century, the Portuguese steadily pursued their career of maritime discovery and commercial adventure along the western coast of Africa. Year after year they pushed farther southward, exploring the shores and islands. They advanced slowly until they heard of the success of Columbus, and then, becoming bolder, they went on to the Cape of Good Hope, in 1496; and, two years later, Vasco de Gama reached Hindostan, and thus, at last, struck the true India, opened a new and cheaper route of traffic between Europe and Asia, avoided the expense, dangers, and delays of caravan transportation, and gained the prize which Columbus had sought in vain. The Portuguese were fairly entitled to the reward on account of their pioneership in ocean navigation, and it fell entirely into their hands. A fleet of Egyptian and other vessels, interested in the old route, attacked a party of early Portuguese traders, but were defeated. The Europeans were superior in ships, gunnery, seamanship, and soldiership, and, wherever they saw fit to establish trading colonies, there they were soon the centres of political influence, commanding the trade, deciding national quarrels, sustaining their friends, and punishing their enemies, for wide districts about them.

SEC. 192. *Portuguese Commerce*.—Freight from Lu-

dia to Western Europe cost so much less by their route than the other, that the Venetians were unable to compete with them, and, by their profits, they were enabled to build numerous ships, and lay the foundation of colonies, protectorates, and conquests. Between 1510 and 1514 they had taken Java, Malacca, Aden, and Ceylon; an ambassador represented Portugal at the court of China before Cortez landed in Mexico; and their trade was established in Japan before any other European nation began to send ships to Asia. Their navigators, merchants, soldiers, diplomatists, and missionaries, had exclusive access to the southern and eastern coasts of the Asiatic Continent, from the Red Sea to Corea. They claimed a monopoly of the commerce, and were in a position to defend their claims. They had the only pilots familiar with the route, the only stations where vessels could refit in case of accident, and get supplies of fresh provisions, and the only depots where spices, muslins, silk, rice, cotton, pearls, and gems, could be obtained conveniently. As time advanced their trade increased, their colonies multiplied, their influence over the native princes grew stronger, their missionaries made more converts; and, matters having advanced thus for nearly a century, there seemed to be a fair prospect that Hindostan, Siam, China, and Japan, would become provinces of Portugal, or at least that their immense trade would become a permanent monopoly of the mariners and merchants of that enterprising little country.

SEC. 193. *Dutch Rivalry*.—The Portuguese not only had possession, but they had no rival. France and Italy had no sea-going ships; the English, Danes, and Swedes, had not more than enough for their traffic with Lisbon, Seville, Cadiz, and Antwerp, where they ob-

tained the products of Asia and America, brought to those ports by Spanish and Portuguese ships; and the Spaniards, who might be formidable, had as much as they could do to attend to the trade of Mexico, Peru, Cuba, and other possessions in the New World. The Netherlands had numerous ships and excellent sailors, but they were the subjects of Spain, and the sharers in the profits of her American colonies.

But Portugal was ruined by her union with Spain in 1580, a measure which might have seemed a guarantee for her safety and prosperity. Spain, mighty as she appeared, had overstrained her forces when she attempted to establish religious and political tyranny over the Dutch, who soon found that there was no point in which they could inflict more serious injury on the enemy, and gain greater profits for themselves, than by seizing the Portuguese colonies in Asia; and they did so, showing a decided superiority as sailors, soldiers, traders, and diplomatists, over the Latins; and their military and naval success led to the expulsion of the Jesuit missionaries from China and Japan, and the overthrow of one of the chief hopes of Latin influence in Eastern Asia.

The loss of its Asiatic colonies and trade, and the consequent decline of Portugal, were sudden; and, though the national independence was recovered in the middle of the seventeenth century, the commerce of the East Indies was gone forever. Its only important colony, from this time forward, was Brazil, which gradually increased in importance, and, early in the eighteenth century, began to yield large quantities of gold from the placers in the basins of the San Francisco and Parana Rivers, the richest and most extensive auriferous deposits known to modern civilization previous to

the opening of the mines of California. The Brazilian placers reached their highest productiveness about 1725, when they turned out twenty-five million dollars annually, and then began to decline, but they are not yet exhausted. They did not enrich either the colony or the mother-country; and, although their yield was relatively as great as that of California a century and a quarter later, yet, in consequence of the illiberal system on which they were managed, they had very little effect upon commerce, enterprise, or general business.

SEC. 194. *Dutch Republic*.—The struggle of the Dutch for independence is, in many respects, one of the most remarkable and most important in history. They numbered not more than a million and a half of people unaccustomed to war, unprovided with generals or arms, with no fortifications, in a flat, small country, open to invasion at every point on a long land-side, and they had to contend against the best generals and the best armies of Europe, maintained by a nation of ten millions, who, besides the resources of their own country, had the help of the rich mines of Mexico and Peru; but the Dutch were fighting for political and religious liberty, and their devotion was equal to the sacredness of their cause. Before the war had commenced, the Spanish Inquisition, with the help and protection of the Duke of Alva, had slaughtered eighteen thousand persons for heresy, and Spain and Catholicism became so hateful to the Dutch that, sometimes, for want of a better symbol of their unconquerable hostility, they hoisted the Mohammedan crescent at the mast-head of their ships when going into battle! Their desperation was finally triumphant, and they saved the purely Teutonic portions of Europe from the Inquisition, absolutism, and subjection to Latin dictation.

They were unable, however, to prevent the Walloon provinces (now Belgium), which had revolted with them, from falling into the possession of the Spanish troops, and remaining subjects of the Spanish crown.

Soon after the Netherlands revolted, the Hollanders became the first mariners and ship-builders of Europe ; and, although they could not provide a navy equal in the size and number of vessels to that of Spain, they seldom failed to gain a victory when they met on equal terms. It was fortunate for Holland that Philip II., after long preparation, attacked England, in 1588, with the Invincible Armada, which was dispersed and partly destroyed by a terrific storm, and its remnants afterward attacked and defeated by the English. The Spanish navy never recovered from the disaster, and, a few years later, the Dutch were undisputed masters of the seas. Their war against Philip resembled that of the English against the First Napoleon ; they obtained the money for their campaigns from tribute levied on the commerce of the enemy. Philip was so dependent on the Dutch shipping that he was compelled to let his subjects trade with them ; and, when at last he cut off all communication, the rebels, who had previously confined their voyages to Europe, sent out expeditions, conquered some of the most valuable settlements and colonies of the Spaniards and Portuguese in the East Indies, and monopolized the trade in spices, silks, and Asiatic merchandise.

SEC. 195. *Dutch Wealth*.—Before the close of the war in 1610, Spain was impoverished and exhausted by the expenditure of her treasure and men in her unholy contest against freedom ; while Holland, instead of growing weaker, gained strength as well as wealth every year. The Dutch had taken the Moluccas and

had been the first commercial city, and Ghent, the first manufacturing city of Europe, had scarcely been subjected to Spanish rule, before they sank down to far inferior positions. Many of the weavers, dyers, goldsmiths, silversmiths, jewelers, ship-builders, and workers in wood and metals in Ghent, Bruges, Brussels, Liège, Namur, Mechlin, Maestricht, and other Flemish towns, followed the merchants into Holland, whither also went Calvinistic refugees from France, Germany, and England, filling the little country with a picked population of grave, brave, thoughtful men, ready to die cheerfully rather than submit to Spanish tyranny.

SEC. 196. *Dutch Government.*—The government was an oligarchy, the chief political power being in the hands of a small body of electors, most of whom were rich merchants. The farmers and mechanics generally had no votes. The national administration was under the control of a federal council in which each of the seven states had one vote, and unanimity was requisite for the adoption of any measure. One of the representatives of the wealthiest and most populous state in the union was the grand pensionary, whose office was the most important in the country. He was selected on account of superior ability, was usually retained in office for life, was a member of all committees, drew up or revised all the statutes adopted by the federal council, conducted all the foreign correspondence, and was the chief civil officer of the republic.

SEC. 197. *Liberal Policy.*—The aristocracy of merchants used their power generously. They carefully protected the general rights of the people. On account of the defective federal constitution, the jealousies of the states, the adoption of erroneous rules at first, and the difficulty of changing them afterward, the taxes

were unequal as well as very heavy. It was said that before a mess of fish (a principal article of food) could be put on the table ready for the family dinner, it had to pay thirty-five different taxes. But the government was worth more than it cost. In no other country were the profits of business so large, or the increase of the general wealth so rapid and constant. Holland was the first state with a population in which everybody could read and write. While the Dutch did their best to maintain monopolies abroad, they made trade at home as free as possible. Their taxes were levied for the support of the state, not for the profit of individuals or classes. Anybody could be a mechanic without asking leave of any guild. Although the principle of toleration was not generally accepted, the government sought out no victims for persecution. Foreigners were welcome to make their homes in this little republic. A memorial addressed by some Dutch merchants to the Prince of Orange in 1751, when Holland, though in her decline, was still powerful, contains the following passage :

“It has always been our constant policy to make Holland a perpetual, safe, and secure asylum for all persecuted and oppressed foreigners. No alliance, no treaty, no regard for nor any solicitation of any potentate whatever, has at any time been able to weaken, or destroy, or make the state recede from protecting those who have fled to it, for their own security and self-preservation.”

Such language could not be used truthfully by any other nation in that age, and in few others would the cabinets have seen any thing to admire in the liberality of the Dutch policy.

SEC. 198. *Dutch Decline*.—The Dutch statesmen in

the middle of the seventeenth century made the mistake of supposing that they were secure against invasion, and they neglected their fortifications and their army. The result was that Louis XIV. took them by surprise; they had a narrow escape from subjection, and they had to incur terrific expenses, besides losing some territory. They were engaged in numerous wars which yielded them no profit, cut off many of their scanty population, and were always conducted at severe loss to them, no matter how much more their enemies might suffer. Their wars with the French and Spaniards, and their competition with the English shipping, gradually reduced them, and in 1770 Holland had ceased to be a great power.

SEC. 199. *Germany*.—The middle of the fifteenth century found Germany still suffering from the Hussite wars, and she recovered slowly. In 1519 Charles V. became emperor, and he ruled nearly forty years, and, as he was King of Spain also, his policy was much influenced by the interests of that country, to the great detriment of Germany, where, however, the government was so weak that the imperial power was little more than a name. The crowns of Bohemia and Hungary became united with that of Austria in the first half of the sixteenth century. The Reformation led to much disorder in Germany, and many civil wars. Germans wandered off in large numbers to fight in Holland, France, and Italy; and the lack of a strong imperial government deprived her of any uniform policy, and of much weight in European affairs. In 1618 a religious war broke out, and it desolated the country for thirty years, with a fury unsurpassed in modern European history. Numerous cities were sacked; towns ceased to exist; houses, fruit-trees, and growing

crops in the country, were wastefully destroyed; the people were driven away; and in some considerable districts the population was reduced to one-tenth of the number at the beginning of the war. Scherr tells that the total population of the country was reduced from sixteen millions to four and a half millions, and the end left the legal rights of the contending sects about where they were at the beginning. The war had been commenced for the purpose of suppressing Protestantism, and the Treaty of Westphalia granted to the Protestant princes the legal right of maintaining Lutheranism or Calvinism in their respective dominions.

The exhaustion was so great that Germany was scarcely heard of till after 1700. There was no literature, art, invention, or discovery worthy of mention in the last half of the seventeenth century. About that time a Frenchman asked whether it was possible for a German to have any wit!

Prussia became independent of Poland in 1657, and gradually advanced until it had become one of the great military powers, and, in proportion to its population, the most formidable of all. Frederick the Great introduced the best military discipline in his army, encouraged manufactures and commerce, secured an excellent and impartial administration of justice, protected liberty of conscience, and emancipated many of the serfs, thus placing his people in a better condition than those of any other country of Continental Europe.

SEC. 200. *Sweden*.—Sweden, which had no weight in the affairs of Europe previous to 1550, rapidly increased in importance after that time. On account of the wars between Russia and Poland, she was enabled to acquire considerable territories east and south of the

Baltic; and, in the Thirty Years' War, Gustavus Adolphus proved himself the greatest general, and trained his men to be the best soldiers, of Europe. His military genius was the main strength of the Protestant cause, and, for more than half a century after his death, Sweden was regarded as a great military power; and Oxenstiern, the prime-minister of Gustavus, was one of the ablest statesmen of his age. In the beginning of the eighteenth century, Russia, Denmark, Saxony, and Poland, formed a coalition to despoil Sweden, whose king, Charles XII., was not out of his teens. He exhibited remarkable military genius, and punished them severely for their blunder. Sustained by a large army in excellent discipline, he overran Saxony and Poland, swept away the Russian armies in his path, gave away the throne of Poland, and aspired, with a reasonable prospect of success, to establish his dominion over Eastern Germany, and all the Slavonic districts of Europe. But he ventured too far, and the Russians, having learned the art of war from him, though in a very expensive manner to themselves, overthrew him and crippled his country so that she never recovered. She lost her provinces east and south of the Baltic, the famous generals and her superior military discipline disappeared, and she sank to a comparatively insignificant position.

SEC. 201. *Poland*.—At the beginning of the modern era Poland was a formidable military power. Under the Jagellons, for nearly two centuries, the government was powerful, but after the death of the last king of that dynasty, in 1572, the crown was declared elective, the choice to be decided by forty thousand nobles collected in a plain. A Diet was chosen by the nobles, and no measure could be adopted without a unani-

mous vote. The grand-chancellor, the grand-treasurer, and the grand-marshal (the last the chief political officer), were chosen by the Diet, and were not responsible to the king. The law allowed the nobles to make war upon each other. None, save the nobles, had any voice in the government, and, of ten million inhabitants, three-fifths were serfs. The results of these conditions were anarchy, civil war, decline of population, decay of the towns, and loss of international influence. Poland held dominion over Prussia, and over what is now Southwestern Russia, to the Black Sea, but, in 1657, Prussia became independent, and Peter the Great took much of the southern territory. In 1683, a Polish army came to the relief of Vienna and drove away the Turks, but the victory was of no service to their country, which continued to decline in power and credit, having no weight in Europe in the middle of the eighteenth century.

SEC. 202. *Russia*.—The Russians were consolidated into one nationality by a German, named Romanoff, in 1480; in 1552 they subdued the Tartars of the Volga Valley; in 1582 they acquired, through the Cossacks, dominion over Siberia; and in 1682 Peter the Great brought the country within the circle of civilization. He had remarkable ability as a general and civil administrator, and, after suffering numerous defeats from the Swedes, he succeeded in taking much of their territory east of the Baltic, and he also took provinces from Turkey and Persia. His chief services to his country, however, were rendered by promoting industrial and intellectual development. He comprehended the future value of his dominion, and he devoted himself earnestly to the education of his people in the useful arts. He founded St. Petersburg, invited foreign

artisans, merchants, and teachers, to his country, carefully trained his army, and, before dying, after a reign of forty-three years, he saw Russia recognized as one of the great powers, and in a fair way to equal the most civilized nations of Western Europe in arts as well as in arms. In 1731, 1742, and 1743, important territorial acquisitions were made in Asiatic Tartary, and in Finland; the army continued to improve in discipline and numbers and the education of the officers, and the national wealth increased with confidence in national strength and better administration of law.

SEC. 203. *Turkey*.—Turkey, which had been considered as one of the greatest military powers of Europe in 1550, began to lose her preëminence in the general estimation in the latter part of the century, because of a change in the system of administration. The sultans, previous to 1566, had given their personal supervision to the civil administration and to the conduct of war, but after that year they ceased to take any active part in the administration, which was left to grand-viziers, with much detriment to the national power. The Turks held a large portion of Hungary and all Transylvania, but they contented themselves with a nominal dominion, leaving the people undisturbed in their religion, property, and local customs, and confirming the authority of the princes who submitted. The Turkish taxes were lighter than the German, and the political authority less oppressive in many respects. In 1571 the great naval battle of Lepanto was fought for the control of the Mediterranean, between the Turks on one side, and Spain, Venice, and the pope, on the other. All the naval forces in the Mediterranean were engaged in this contest, the Turks having two hundred and twenty-four vessels, with

thirty thousand men. Their defeat put an end to their practice of ravaging the coasts of Italy, France, and Spain by sea, though the corsairs of Tunis, Tripoli, and Algiers, were formidable till the eighteenth century, and did not disappear till the nineteenth. Venice, however, declined more rapidly than Turkey, and the latter conquered Cyprus in 1573 and Crete in 1648.

Until 1683, when the Turks were defeated, while besieging Vienna, it was supposed that Christendom was in serious danger of being overrun, and finally wiped out by Islam, but, after that and several other victories gained soon after by the Germans, all apprehension ceased, and in a few years the Mohammedans found that they would be lucky if they could maintain their foothold in Europe. In their wars with the German Empire they had seemed formidable because they were fighting with a heterogeneous nation and a weak government, but suddenly they found that, instead of attacking the Germans, their chief business must be to defend themselves against the Russians. Since that time it has been their highest ambition to be let alone by their European neighbors.

CHAPTER VI.

THE STEAM AGE.

SEC. 204. *General Features*.—The last and greatest epoch in history was made by the improvements in the steam-engine, patented by James Watt in 1769. The era which then began, though it has lasted little more than a hundred years, has wrought more change in the manner of living and working, and in the general condition and prosperity of mankind, than any ten previous centuries. It has broken down the bulwarks of despotism and superstition, made slavery odious, and abolished it in all the leading nations, opened up new realms of positive knowledge and philosophical speculation, prepared mankind for purer freedom and higher intellectual and moral development than any known in antiquity, carried the bright illumination of civilization into extensive regions, which, at the end of the Age of Printing, were still occupied by barbaric nations or savage tribes, and brought the more enlightened communities into close bonds of sympathy, with a feeling of universal brotherhood and a conviction of the solidarity of their interests. Our common modes of living, and styles of thinking, are as far above those of the middle of the Printing Age as those were above the Pelasgian civilization, or that above barbarism, or that above savagism. So grand have been the achievements of late years that the useful arts, the experience,

the science, and the literature of antiquity, have sunk into insignificance as compared with their relative value three centuries ago.

SEC. 205. *The Steam-Engine*.—Steam had been brought into use for pumping in 1699, and the idea of producing power with steam was at least a century older; yet, the improvements made by Watt in the steam-engine were so great that nearly all its present importance is due to his genius. Among the men whose names and contributions to culture are recorded by authentic history, in the list immortal and ever-brightening, John Guttenberg, the inventor of movable alphabetic type, and James Watt, the improver of the steam-engine, the creators of the two main epochs of modern civilization, stand high above all others, as yet unapproached, and perhaps to be forever unapproachable.

Watt made an air-tight cylinder, excluded the air, applied steam alternately at both sides of the piston, provided a separate condenser for the steam, and cut off the supply of steam before the stroke was ended, allowing the expansive force of the steam to supply the remaining power needed. Thus, man gained a new class of servants, whose united power now equals that of all the human producers. These steam-slaves have been set to work to furnish blast to furnaces, to pump water, and hoist and crush ores, to plough land, to thrash and grind grain, to transport people and freight by land and sea much more cheaply than by former conveyances; to cleanse, card, spin, and weave cotton, wool, and linen; to saw, turn, and plane wood; to forge, roll, plane, and turn iron; to draw wire, to twist wire rope, to print newspapers and books, and to drive hundreds of machines of minor importance.

SEC. 206. *Mechanical Power.*—About one hundred and thirty million tons of mineral coal, and other fuel equivalent to coal, are now used annually in driving steam-machinery, and this is equal to the force that could be supplied by thirty million horses (the conventional “horse-power” of mechanics exceeds the power of the flesh-and-blood horse), or three hundred million men; and, as the adult male-producing laborers and artisans of the Euraryan nations do not number more than sixty millions, the addition to their working-power by steam is immense. Water-wheels, with an aggregate force equal to that of six million horses, or sixty million men, have been brought into use within a century. Great improvements have also been made to facilitate and save labor, so that the capacity of the civilized nations to produce the main staples (cotton and woolen clothing, wheat, houses, mechanical and agricultural tools, fire-arms, and other articles equally necessary) has been increased at least threefold on an average, and certainly a hundred-fold in many branches. The sixty million Euraryan producers can therefore do as much now, with the help of steam and labor-saving machinery and tools, as a billion men could have done in the last century.

SEC. 207. *The Advent of the People.*—In polity, society, literature, industry, and art, we recognize the increase of popular influence. Our era is marked by the advent of the people to power, though they have not yet learned to use it properly. While great abuses still prevail in government, the rights of the masses are now treated with a respect previously unknown. The theories that the heirs of certain families have a divine right to rule, and that the people are under a religious and inevitable obligation to submit unresist-

ingly to their dominion, were generally accepted in the middle of last century, but are now discarded by all who understand and sympathize with the spirit of the time. Priests, aristocracies, kings, ministers, generals, and courtiers, have lost much of their influence on human destiny. Representative government is established in all the Euraryan nations, save Russia. Political economy has taught the benefits of free international commerce. The Inquisition and political intolerance have been abolished by law in nearly every country where they were still maintained in 1770. Liberty of conscience has followed liberal political institutions. Ancient national animosities and unjust under-estimates of foreign peoples have lost much of their force. Aggressive war has fallen into discredit, and the spirit in which hostilities are conducted has become more humane. Peace is recognized as the rightful inheritance, and as destined to be, at no distant time, the common blessing and permanent condition of our race, and its final establishment the beginning of a new era, more glorious and happy than any known in the past. Scientific investigation and mechanical invention, long hated and despised, the former considered wicked and impious, and the latter as degrading and fit only for slaves, have advanced in general estimation, and are now in a fair way to be soon appreciated justly as the chief aids of progress, the securities of morality and good government, and the elevators and ennoblers of mankind.

At the beginning of the last century little account was taken of the multitude, and such rights as were allowed to them were granted, chiefly to maintain their productive power, or to secure their aid for one political party against another. Every thing was done to

please the privileged few. They had all the offices, wealth, and education. Schools were maintained, books were written, pictures were painted, sermons were preached, political measures were adopted, and war and peace declared, in accordance with their demands; and, if any advantage accrued to the lower classes, they could bless their good luck.

SEC. 208. *Great Events.*—Among the great events of the Steam Age are the invention and extensive application of the ginning, carding, spinning, weaving, and sewing machines, the puddling-furnace, the rolling-mill, the hot-blast, the steam-hammer, the Bessemer furnace, the planing-machines for wood and iron, the steamboat, the railroad, the nail and pin machines, the magnetic telegraph, the spectroscope, lithography, breech-loading and revolving fire-arms, iron armor for war-ships, friction-matches, the iron mould-board, improved patterns for ploughs and wagons, the steam-plough, the reaping and mowing and thrashing machines, vulcanized rubber, the steam fire-engine, the discoveries of chemistry and geology (sciences which are almost entirely new), and biology (including physiology, pathology, anatomy, and comparative anatomy, in all of which great progress has been made), the application of the new chemical knowledge in mining and metallurgy, bleaching, dyeing, and photography, the spread of education, and liberal political and religious ideas; the rise of the daily press to great influence; the opening of China and Japan to all foreign commerce, and to Euraryan industrial arts; the settlement of Australia, New Zealand, the southern end of Africa, and the western coast of North America, by considerable bodies of Euraryans; the discovery and development of extensive mines of the precious metals under the British and American

flag; and the rise of the two Anglo-Saxon nations to the political, commercial, and intellectual leadership of the world, with a fair prospect of greater triumphs for them in the future.

The development of the daily press, the publication every morning of telegraphic news from the chief centres of civilization between San Francisco and Yeddo; the great extension of the postal department, and the reduction of its charges, the prompt delivery of the mails every day in all the large, and in most of the small towns; the multiplication, greater cheapness, and excellence of the books; the vast variety, learning, and brilliancy of our new literature; the increased education and polish of the people, and the improvements in our places of amusement—all contribute to give spirit to society and zest to life. In the middle of the last century the transmission of general news was restricted mainly to private letters, and was very irregular and incomplete, and gross ignorance and misconception prevailed about foreigners among well-educated people.

SEC. 209. *Home-Life*.—The home-life of the people has been changed. A hundred years ago there were a spinning-wheel and a loom in nearly every country-house, and carding, spinning, weaving, bleaching, and dyeing, were part of the regular work of the women, who until married were called “spinsters,” from the occupation which was supposed to be almost universal among them. The flax, which was grown on nearly every farm when weaving was done by the farmers’ wives and daughters, has now been left to certain districts specially favorable to it. Transportation having become far cheaper, each industry seeks the region most favorable to it, thus making national as well as

individual divisions in labor. Even such a little thing as a friction-match, invented in Connecticut by A. D. Phillips in 1831, has added much to the comfort of the household. Before that time fire was struck with flint and steel, and the spark caught on tinder was converted into a flame by communicating it to tow and blowing it, a tedious, and to many persons a difficult, operation. It was customary to cover up the fire carefully at night with ashes, and, if a single live coal remained in the morning, it would kindle a flame on a large match dipped in brimstone, and with this the kindling-wood was started. The water, formerly carried considerable distances from the wells and springs in towns, by servant-girls, is now brought into the houses by pipes. Machines have superseded hands in most of the needle-work. Stoves, ranges, kerosene, gas, washboards, wringers, patent sweepers, and a multitude of other devices, have greatly reduced the labor and increased the elegance and comfort of house-keeping. The fruits of the South and the grains of the North are interchanged; cheap books, cheap evening entertainments accessible to a large proportion of the people, cheap travel, and daily newspapers, have given a new spirit to society. Surgery, vaccination, and improved knowledge of the laws of hygiene, have increased the average duration and security of life.

Some of the changes in home-life also affect industrial life. The production of textile fabrics has been transferred from the dwelling of the poor to the factory of the rich man. Carders, spinners, weavers, bleachers, and dyers, do not work in small villages or in the country, each on his own account, but have been collected into towns or cities, as the servants of capitalists. Manufacturing generally has changed in the same

manner from small shops to factories. The village tailor, shoemaker, chairmaker, blacksmith, and cabinet-maker, formerly supplied their respective neighborhoods with nearly every new thing that was required in their respective branches; but now they are mostly menders of articles produced in extensive establishments at a distance.

SEC. 210. *National Changes*.—In national and international affairs the changes are remarkable. Great Britain has become the richest of nations, and three powers of comparatively little note in the middle of the last century have risen to the first rank: America, Russia, and Northern Germany. Poland, Venice, Sicily, the Papacy, and several hundred petty German principalities, have disappeared from the political map; France, Holland, Sweden, Denmark, Austria, Spain, and Portugal, have declined greatly in importance. All portions of the American Continent except Canada have become independent; highly-civilized and prosperous communities have been established in Australia, New Zealand, and South Africa; and the numerous British colonies, save Hindostan, have received liberal governments. The Latin nations have made little progress, while Germany, Great Britain, Russia, and the United States, have advanced wonderfully, so that relatively there has been a great decrease in the Latin influence within a hundred years.

SEC. 211. *Cloth-Machinery*.—It was in 1767 that James Hargreaves invented his spinning-jenny for making twenty threads at once, in a machine managed by one person, thus doing twenty times as much as the spinning-wheel which was invented in Flanders, or introduced into that country from Hindostan (where it had been previously known), and enabled the spinner

to make thirty times as much thread as he could make by hand. The jenny made only weft, or the threads to be used transversely in weaving, the strong warp being still made on the wheel, until it was spun in 1769 by the spinning-frame, devised by Richard Arkwright who also invented a carding-machine. Ten years later Samuel Crompton combined the merits of the jenny and the frame in the mule, which could do more and finer work than either. Edmund Cartwright invented the power-loom in 1785, and thus England was prepared to enter upon the manufacture of thread and cloth. But how should the material be obtained? The demand already exceeded the supply, and the increase in wool must be slow. Most fortunately another mechanical genius now came forward and furnished cotton in abundance, beyond any previous conception. The difficulty about its production was that the fibre as picked from the plants adheres to the seed, and the separation by hand is a very slow and tedious process. one person being able to cleanse only a few pounds in a day. When Mr. Whitney, an American, made the cotton-gin in 1793, thus enabling one man to cleanse as much fibre in one day as fifty could do before, the circle of inventions needed for the manufacture of cotton, including the cleansing, carding, spinning of weft, warp, and thread, and weaving, seemed complete; but several others were still to come. Much difficulty was found in using the power-loom, in consequence of the roughness of the warp, and the weavers had to stop their looms frequently to dress their threads or glaze them with flour-paste; but in 1802 Mr. Radeliffe invented his dressing-machine, and now spinning and weaving by steam could go ahead with uninterrupted energy. But an obstacle stood in the way of the cloth

after it had been woven. The mills could not bleach it. When a few yards were woven daily in the cottages of isolated weavers, each with its grass-plot, the cloth could lie out in the sun and rain for months, with little expense or trouble; but the mills weaving thousands of yards daily could not provide the vast area for sun-bleaching. Then the new science of chemistry provided relief. Mr. Tennant discovered that with chloride of lime the cotton cloth could, in a few hours and at little expense, be bleached as nicely as by months of exposure to the sun and rain. Jacquard, a Frenchman, in 1804 invented his loom for weaving cloth with varied or colored figures, a machine of great ingenuity, and of much industrial value.

SEC. 212. *Iron Production.*—Neither steam nor cotton machinery could have risen to its present value if iron had not been supplied in greater abundance and at cheaper rates than in 1770, and here again the practical genius of Great Britain took the lead. Watt's engine soon after its invention was set to blowing furnaces for smelting iron-ore, and under the new demands the production of English iron more than doubled within twenty years. In 1783 Henry Cort invented the puddling-furnace, for converting cast-iron into wrought-iron in large quantities and at small expense. In this furnace the molten metal is exposed to the air until most of the carbon is burned away, and the iron comes out in a malleable condition. But, when he produced it in large masses, the old methods of working by hand became difficult, as the smiths found the heat very troublesome while hammering the "blooms." Then he invented his rolling-mill, in which large revolving iron wheels caught the white-hot shapeless lump of iron, weighing several hundred pounds, and rolled it

out into a bar, which was caught by other wheels or rollers, and rolled into round, square, flat, or other-shaped bars, narrow straps, or wide sheets, ready for use, with a regularity of form, thickness, and texture, never equaled before, and at an expense not exceeding one-twentieth as compared with the inferior handwork.

Many large articles of wrought-iron could, however, neither be produced by the rolling-mill nor by hand, and the steam-hammer was invented to supply the want, in 1838, by James Nasmyth. With a weight of several tons it forged the largest masses of red-hot malleable iron and steel without difficulty. The iron-planing machine, in 1825, produced plain surfaces with an accuracy which handwork could not equal, and of great importance in large machinery. In 1828 J. B. Neilson, of Glasgow, blew hot instead of cold air into the smelting-furnace, and soon found that he could save much fuel, and also use coal instead of coke. The cost of iron by this one invention was reduced nearly fifty per cent. Steel, an intermediate condition of iron between the cast and the wrought, had been made in small furnaces and at much expense until 1856, when Henry Bessemer, an Englishman, invented a large furnace in which the air was blown through molten pig-metal, until a sufficient portion of the carbon had been burned off, and then the complete steel was run out. An immense stimulus was given to steel-production by this invention. The present annual iron-production of the world is about twelve million tons, an increase of sixty-fold within a hundred years.

SEC. 213. *Steam-Locomotion*. —The steamboat, the first application of steam-power to locomotion, was made a practical success in 1807 on the Hudson River by Robert Fulton, and in 1829 George Stephenson applied his

previous invention of the tubular boiler to locomotives, and blew the waste steam up the chimney to make a draft. The iron track made a saving of ninety-five per cent. in the friction as compared with common roads, and steam-transportation by land and water has now become one of the great features of life.

SEC. 214. *Various Inventions.*—The reaping, mowing, sewing, pin-making, and nail-making machines, vulcanized rubber, and friction-matches, are inventions of American origin. The iron mould-board which was of vast service to agriculture by facilitating ploughing, was first brought into use in Scotland in the last century; and the steam-plough, worked by a stationary engine, belongs to England in this century.

SEC. 215. *Scientific Progress.*—The large number of scientific observers has enabled them to make a minute division of labor, and to accumulate a vast amount of precise information, the knowledge of much of which is of great service in practical life. The subtleties which made up a large part of the philosophy and consumed much of the time of the metaphysicians of previous centuries, have now lost their interest, and the philosophy of science has taken its place, with Herbert Spencer, an Englishman, as its greatest teacher. The chief business of the philosopher two centuries since was to reason about the unknowable; now his realm is the known.

SEC. 216. *Chemistry.*—Chemistry, the most important of all the sciences, was first named, systematized, and explained, by Lavoisier, a Frenchman, in 1789. He introduced a new nomenclature, discovered the value of the scale in analysis, analyzed many common substances, and set forth the chemical nature of salts, acids, and fermentation. He had been preceded by

Dr. Priestley, an Englishman, whose discovery of oxygen in 1772 may be regarded as the beginning of the investigations that led to the organization of the new science. Since the publication of Lavoisier's book, scarcely a year has passed without some valuable additions to chemical knowledge; and, among many for which there is no space here, the discovery made by Dr. Dalton, an Englishman, that the elements combine in definite proportions under strict laws, and the discovery by W. R. Grove, that the physical forces of Nature are mutually convertible, deserve special mention.

The discovery of galvanism, in 1790, and of the voltaic pile, in 1792, supplied electricity by the solution of two metals in diluted acid for chemical analysis, and for the production of electro-magnetism. François Arago discovered in 1819 that a bar of iron could be made magnetic by running a stream of electricity round it; and Charles Wheatstone sent electric currents long distances on insulated wires to soft iron bars, which, when magnetized and demagnetized, deflected a hand on a dial-plate. This was the first electro-magnetic telegraph, and it was in regular use for business purposes by the English for several years before it was tried in any other country. The methods of sending and reading the signals were inconvenient, however, and the telegraph did not become important until S. F. B. Morse, an American, devised a new code of signals, and invented an automatic reading apparatus which came into use in 1844. In less than thirty years the telegraph has been extended to connect Japan and Australia with San Francisco, with a vast network of line, running to all the main towns of the Atlantic States and Europe.

Among the other improvements in the useful arts

made with the help of chemistry are, the adaptations of plants to soils, and of manures to plants on the basis of analysis, the extensive use of mineral manures, the inventions of photography, phototypic engraving, electro-plating, electro-typing, the production of illuminating gas, the adoption of new processes for making soap, salts, acids, and perfumes, for reducing copper and silver ores, for separating the precious from the base metals, and the production of new dyes. Electricity, elementary reagents, and the spectroscope, have given great scope and efficiency to analysis.

SEC. 217. *Astronomy*.—In astronomy we have ascertained that the sun and stars contain the same chemical elements as those found in our earth, and that the universe was created, or evolved, from a fire-mist that, in a remote antiquity, pervaded space, and gradually, by rotating, revolving, and contracting, and moving under the laws of gravitation, assumed its present general shape.

SEC. 218. *Geology*.—Geology, like chemistry, is entirely the product of the Steam Age. It has shown that the earth has existed for vast ages, has gone through a great variety of changes, has supported many successive and varied forms of animal and vegetable life, and that various regions have had their eras of glacial, volcanic, and diluvial action, and all under natural laws. This science, too, has become a valuable assistant in the useful arts, guides us in searching for mineral treasures, and indicates the districts destined to be the chief centres of wealth and population in the future, on account of the superior mechanical power which they will derive from their stores of fossil fuel.

SEC. 219. *Biology*.—Biology has made immense advances. The zoologic classification of Linnæus has been

abandoned for that of Cuvier, which was published in 1816. He founded paleontology and comparative anatomy, and contributed much to simple anatomy. Physiology also owes much to the investigations of the Steam Age. The character of the cells has been studied with more care than before, and also the nature of the tissues. We have learned the difference between the sensory and motor nerves, and have ascertained that different parts of the brain have different duties to perform, that the brain is the organ of the mind, and that psychology, or mental science, is a branch of physiology. Lamarck has taught that the highest forms of animal life have been developed gradually by natural ascent from the lowest, and, even if his theory (which is now accepted by many of the most eminent zoologists) should be finally proved unsound, it must always hold a high place in science on account of the remarkable learning, ability, and original research, brought out in its discussions.

SEC. 220. *Medicine*.—Surgery and therapeutics have shared the progress of the age. The greatest discovery in medicine was vaccination, made in 1798 by Dr. Edward Jenner, an Englishman. It provided a complete check to the ravages of small-pox, which had carried away one in eight of the people in Western Europe before the introduction of inoculation, in 1722, and now does not carry off more than one in five hundred.

Another most important discovery was anæsthesia, first applied by Dr. W. T. G. Morton, an American, in 1846. By destroying the sense of pain, it not only spared much suffering, but facilitated many very difficult and dangerous surgical operations. The discoveries in anatomy, physiology, and chemistry, have suggested numerous improvements in surgery and medicine,

and supplied an extensive list of new and most valuable remedies, including quinine, morphine, chloroform, chloral hydrate, and creosote.

SEC. 221. *Music*.—In music the progress of the Steam Age has been so great that its productions far exceed in value all that have come down to us from previous times. The modern opera did not take its present form and perfection until 1784, and all our best works in that branch are of later date. The Italians kept the lead for three centuries after the beginning of the modern era, but now the Germans have displaced them, while the French rival the Italians, and the English and Spanish are below either. Music, which was formerly to be enjoyed mainly at the courts and in the large churches, has now, by the increase of wealth, become a possession of the common people.

SEC. 222. *Pictorial and Plastic Arts*.—It was supposed by many persons that the spread of democratic ideas would deprive painting and sculpture of the patronage of the courts, as the Reformation had deprived them of much of the patronage of the church, but, instead of such a result, we find that the fine arts were never cultivated more extensively, or patronized more liberally, than now. The artists, looking to a numerous public for support, are more independent in their position than they were when a courtier or cardinal had exclusive control of the fund devoted to the purchase of pictures and statues. In Raphael's time the chief demand for pictures was to ornament large churches; now it is for comparatively small parlors or private galleries. There has consequently been a change in the subjects and size of pictures, but no age ever produced so many excellent pictures as ours; and Paul Delaroche, who died in 1856, is entitled to rank

alongside of the greatest men who ever handled the brush. The Germans and French are nearly equal in oil-paintings; the English, Americans, and Italians, considerably below.

Engraving made a great advance when Bewick, an Englishman, introduced boxwood; and, by the use of finer lines, produced much finer finish and stronger effects than those previously obtained. To him wood-engraving is mainly indebted for its present value in the ornamental illustration of books. Lithography and chromo-lithography are all products of the Steam Age, and have exercised great influence in multiplying and cheapening works of pictorial art, diffusing taste among the people, and preparing the way for a new artistic era in which copies, made by mechanical or semi-mechanical means, will be equal to the best originals, and will be sold at very cheap rates, and in great numbers, for distribution to the remotest lands, thus giving the artist, as well as the author, direct access to the poor as well as the rich, to the remote as well as the near.

In statuary our age has been fertile, and many of the late works compare favorably with the best remains of Greek sculpture. Thorwaldsen, Canova, Gibson, Palmer, and Rogers, have each remarkable merits.

SEC. 223. *Architecture*.—Architecture, as a fine art, has made no noteworthy progress in the last two centuries, but, as a useful art, has advanced considerably with the help of improved chimneys, ventilation, heaters, iron for strength and ornament, and gas and water pipes. We have no temples equal to those of ancient Greece in beauty, but our houses are far more comfortable.

SEC. 224. *Literature*.—While science thus sprang, within a century, from insignificance to an importance

second only to that of the useful arts, literature was by no means inactive. The most valuable branches of it were the industrial and scientific, which recorded, explained, and popularized the new inventions and discoveries. In many other branches remarkable progress was made. The most celebrated historical models of antiquity have been surpassed. Gibbon, Grote, and Macaulay, are decidedly superior in general merit to Herodotus, Thucydides, and Tacitus; and, besides, our historians have opened up a wider field of study, and have found new methods of ascertaining the truth. Historical criticism has taught us how to separate the mythical from the historical in ancient story, and linguistic ethnology and archæological and philological research have opened up vast realms of knowledge. We have learned to distinguish between the history of our race and that of a few individuals who happened to hold office, and our historical composition is changing from a personal to a philosophical character.

The poetry of the Age of Steam exhibits a list of great names nearly equal to that of all the preceding ages together, including Goethe and Byron, each occupying a place in the first rank, and two never equaled by any other couple of contemporaneous poets. Nearly all the best poetry of the age is English and German; the French being moderate in quantity, and the supply from Spain, Italy, Sweden, Denmark, and Russia, scanty. A new department of literature has been opened with the prose romance, which, though not previously unknown, acquired a new importance with Walter Scott, and now exercises a large influence in entertaining and educating mankind. Among the greatest novelists, including George Sand, Charlotte Brontë, Mrs. Craik, Mrs. Lewes, Mrs. Stowe, Thackeray,

Dickens, Scott, and Fréytag, the English have a decided majority.

SEC. 225. *Religion.*—In matters of religion the Steam Age has brought many changes. The people of revolutionary France, provoked by the adherence of the Catholic clergy to the Bourbons, became bitter enemies of Christianity, confiscated all the church property, persecuted the priests, and seemed, for a few years, to have severed all connection with the church, but Napoleon I. reëstablished Catholicism as the religion of the state, and the country people generally soon became, and have since remained, faithful to the ancient creed. Italy, Spain, Austria, Bavaria, and Spanish America, have abandoned their former intolerance, and have granted freedom of opinion and worship, have deprived the clergy of their control of education, and legalized civil marriage. In 1869 an Œcumenical Council of the Catholic Church—the first in more than three centuries—was held, and it declared the pope infallible in matters of doctrine, and adopted a new creed, including the dogma of infallibility, and also that of the immaculate conception of the Virgin Mary. Among Protestants public opinion has tended toward liberalism. Creeds, as lines of demarcation between churches, are less in favor than they were, and many of the evangelical organizations have indicated a feeling that they should labor to reunite the sects long separated. Mormonism and spiritualism, new forms of faith, started in America, the former about 1830, and the latter 1850, have gained some converts, but are making little, if any, progress now.

SEC. 226. *American Independence.*—Although there were many great statesmen before the Age of Steam, yet some of the most important principles of govern-

ment were unknown or unrecognized in practice until after the American Revolution, which was probably, as Brougham says, "the most important [political] event in the history of our species." The colonies, having been allowed to grow up in a neglect which saved them from a thousand abuses established in England, had at last become strong enough to stand by themselves, and they were provoked to assert their power by the refusal of the mother-country to open the career of political ambition to the colonists, and by the attempt to levy taxes without their consent. The Americans, soon after resorting to arms, issued a Declaration of Independence, which commanded universal admiration by the broad principles of freedom laid down in it, and by the vigor and discretion of its language. It was a new promise of the fulfillment of the great expectations that had been cherished of that favored region in the New World, where religious and civil liberty had made their home. When at last the independence of the colonies was established; when Washington, the commanding general, instead of attempting to usurp power for himself, after the manner of Cromwell, promptly withdrew to private life; when a republican constitution, novel in its system to European statesmen, and yet wonderful in its comprehensiveness, its precision, and its adherence to the social and political simplicity of colonial times, was adopted; and when the new nation thus organized immediately showed that it had the elements of unexampled growth and prosperity—the world had to admit that, notwithstanding many drawbacks, these promises had been fulfilled. Of the establishment of American independence, Brougham said: "It animated men all over the world to resist oppression. It gave an example of a great people, not only emancipating

themselves, but governing themselves without a monarch to control, or an aristocracy to restrain, them; and it demonstrated, for the first time in the history of the world, contrary to all the predictions of statesmen, and the theories of speculative inquirers, that a great nation, when duly prepared for the task, is capable of self-government."

SEC. 227. *Liberalism*.—The assertions in the Declaration of Independence that men have an inalienable right to life, liberty, and the pursuit of happiness; that the only proper foundation for a government is the consent of the people; and that all men are created politically equal, found a lively response in Europe, especially in France, where the American alliance gained favor for American ideas, which contributed materially to guide the course of affairs after the revolution broke out. Europe, however, was not ready for republicanism, and France drifted back into monarchy, but the government never became so corrupt, inefficient, and oppressive as it had been in the middle of the eighteenth century.

When the French Revolution of 1789 broke out, all Continental Europe, except the Netherlands, Venice, and Switzerland, was under despotic governments; and the monarchs united to suppress the republicans, who threatened to ruin the trade of royalty. The French "carried the war into Africa" by proclaiming the overthrow of tyranny everywhere; and in Germany and Italy they were welcomed by many of the people as deliverers. After the overthrow of the first Napoleon, despotism became, in most of these states, as cruel as it ever had been before, notwithstanding promises of reform made by the kings when they were in danger.

SEC. 228. *Popular Government*.—But despoti

was at war with the spirit of the age, and could not be maintained. The people learned more and more of their power; the soldiers could no longer be counted upon as supports of tyranny; the popular outbreaks of 1830 and 1848, the wars of 1866 and 1870, showed the importance of conciliating public opinion; gradually constitutional forms were introduced; and now legislatures, elected by the people, enact the laws and control the taxation in all the leading nations of Continental Europe, save Russia and Turkey. All of Spanish America threw off the yoke of Spain and adopted republicanism, which now prevails throughout the New World, except Brazil, Australia, and New Zealand; Great Britain and Italy have responsible governments, wherein the king performs his official acts through the cabinet, which must obey the wishes of the popular branch of the legislature; they are republics in all save name; and even in name France and Spain are republics.

SEC. 229. *Slavery*.—In 1770 slavery was recognized by the laws of Great Britain, France, Spain, Denmark, and the Netherlands; and serfdom still existed in most of the nations of Europe, including Great Britain, where there were a few serfs until 1799. The Americans, who officially declared all men politically equal, would probably have abolished slavery at no distant day, if the unexpected and immense profits of cotton-growing had not given great additional value to slaves in the Southern States; while the production of sugar, coffee, and indigo, gave additional strength to slavery in Brazil and the West Indies. The Northern American States all abolished slavery in the last century. The mixed condition of the population in Spanish America, and the small proportion of pure whites,

compelled the revolutionists there to proclaim universal freedom. Great Britain had only one colony, Jamaica, in which slavery was maintained, and she abolished it there in 1820. France gave freedom to her few colonies in 1848; the civil war of the United States ended in 1865, with the overthrow of slavery in North America; in 1872 Brazil provided for the final extinction of slavery in her territory; and Spain promised personal liberty in Porto Rico and Cuba in 1873. The slave-trade was declared piracy in 1825. Serfdom in Europe has decreased with nearly every revolutionary movement since 1789, and in 1864 was abolished in Russia by an imperial decree, and now nobody is born a serf or slave in Europe or Continental America.

SEC. 230. *Political Economy*.—In 1776 Adam Smith published his "Wealth of Nations," the first clear and comprehensive exposition of the true principles of governmental policy with reference to commerce and manufactures. Before the appearance of his work, the leading statesmen regarded the exportation of money as one of the greatest misfortunes that could befall a country, while oppressive restrictions on trade, high import duties on articles indispensable to industry, and monopolies, were common. The treatment of the colonies indicated the spirit of the home governments. The ports of Spanish America were closed against all vessels save those from Spain, and the residents of the colonies were forbidden to engage in many branches of manufacture or agriculture, for fear that the market would be closed against the Spanish producers. The same general policy was applied by the British Government to the English colonies.

The establishment of the independence of the New World, the rapid increase in the profits of commerce

and manufactures, and the great stimulus given to industry by freedom, led to an extensive recognition of the correctness of Adam Smith's reasoning.

SEC. 231. *Criminal Law*.—The criminal law shared the progress of the age. In England a great reform was effected by the mitigation of the severity of punishments. The number of capital crimes was seventy in 1800, and had been reduced to ten in 1830, and the number of executions fell from three hundred to thirty in a year. In France, a new code drawn up in the reign of the first Napoleon (a great improvement on the previous system of laws) was adopted, and thence it passed to various other countries of Europe. It gave more precision to property rights, more simplicity to the administration of justice, and more mildness to the punishments of crimes. A legal literature, far richer and more extensive than any before known, has grown up, and the materials are rapidly accumulating for codifications more comprehensive and valuable than those made by order of Justinian.

SEC. 232. *Art of War*.—The art of war has been revolutionized within a hundred years. The substitution of rifles for muskets, and of breech-loaders for muzzle-loaders; the introduction of conical bullets and telescopic sights, of rifled cannon and shells for field service, and of revolving pistols, have changed the character of encounters. The order of battle is more open than formerly; the encounters begin at greater distances; the bayonet is less important; more depends on the excellence of the arms, and on the general intelligence and mechanical skill of the men, and on the engineering skill of the officers. The railroads and electro-magnetic telegraphs have also made great changes, by giving immediate information at remote

distances, and transporting troops twenty times faster than they could march afoot, thus reducing to a single day movements that before required weeks.

SEC. 233. *Spirit of War*.—Besides the great changes in the art of war, resulting from the vast improvements in the weapons, the transportation, and the transmission of information, the spirit in which hostilities are conducted has altered. In the last century it was the rule that the army should plunder the people of conquered provinces, and invasion was almost equivalent to devastation. But now reputable generals require their men to respect private property; and, although an army in hostile territory will always be guilty of much violence and plunder, yet the evil is far less now than formerly. The sanitary arrangements have also been greatly improved, and the surgical attendance on the wounded is more careful. An international sanitary convention established rules declaring surgeons and hospitals sacred in war, and providing that the victor in battle should permit the surgeons of the defeated army to attend its own wounded, while the surgeons of the victors should aid after taking care of their own wounded. These rules have now the effect of international law, and were tried in the German-French War of 1870 with excellent results.

SEC. 234. *American Republic*.—The American Republic was the first political birth of the Age of Steam. The population of the English colonies of North America had increased to two and a half millions, scattered from Maine to Georgia, between the Atlantic and the summit of the Alleghanies. A few adventurous men had passed over into the basin of the Ohio, but they had no large towns, nor regular communication with the settlements. The Seven Years' War, ending in

1763, had made a vast increase in the British debt, and serious fears of national bankruptcy prevailed. As a considerable part of the expenditure had been incurred in the conquest of Canada, an enterprise urgently demanded by the colonies, Parliament determined to levy taxes on them. This measure gave great offense to the colonists, who claimed as one of the chief advantages of their condition that their governments were cheap. Besides, they were not represented in Parliament, and one of the established maxims of England was that there should be no taxation without the consent of Parliament, or, in other words, no taxation without representation. Other motives impelled the people to long for independence. They considered their government better than that of Great Britain; they did not wish to be subjected to the authority of a king and nobility with whom they were not in sympathy; they were confident that their country was to become very populous and wealthy, at some time not very far distant; they believed themselves strong enough to maintain their independence with such help as they were sure of getting; and they were unwilling to deprive their ambitious men of the hope of rising to higher offices than they could get under the rule of a distant and jealous government.

SEC. 235. *American Union*.—For the purpose of the war the colonies organized a confederation, the powers of which were restricted to jurisdiction over foreign relations, the army, the navy, postal affairs, disputes between the States, and the relative value of the different kinds of money in use in the States. These powers were exercised by a Congress in which each State had one vote, and nine States out of thirteen were necessary to carry a measure. The Confederation had

no civil executive department, no courts except for admiralty cases, and no means of raising revenue directly. The States were not only sovereign, but any one could without difficulty throw the entire Confederation into disorder. Yet the great seal of the Confederation bore the inscription "*Novus Ordo Sæculorum*," "A New Epoch in History," and John Adams wrote from France that the work was received in Europe with remarkable panegyric. It soon became evident, however, that the Confederation was too weak, and four years after the war a Union was established, under a written constitution, which showed more originality of thought, legal learning, and political prudence, than any governmental reform on record. Much of it was thought out anew for the occasion. It was not free from very serious defects, but it also possessed remarkable merits. It provided for a presidency, to be filled by popular election once in four years, and a cabinet to be selected by the President; a Congress in two Houses, one to represent the people in proportion to population, and the other to contain two representatives from each State in its composite capacity; and a judicial system, in which the Supreme Court should have final jurisdiction, affecting the validity, under the Federal Constitution (the supreme law of the land), of all acts of Congress, or of the State Legislatures; and in all suits between States, between citizens of different States, and between citizens and aliens. The courts have authority to compel the executive officers to perform their duties under the statutes, and to declare that the statutes are void on account of unconstitutionality or vagueness; thus the judicial authority is made the highest in the government. The experience of eighty years has justified the wisdom of this feature of the American Gov-

ernment: the courts have exercised their authority with great discretion, and have sustained their decisions with a learning, ability, and tact, that have left no ground for agitation against judicial supremacy.

SEC. 236. *Liberal Policy.*—Congress, under the new Constitution, besides having control of foreign relations, the army, the navy, postage, and disputes between the States, as under the articles of confederation, also had control of national citizenship, copyright, and patents, the right to levy direct taxes on the States, to collect duties on imports, to regulate commerce with foreign nations and between the States, to coin money, and to incur debts. These powers, supported by the machinery of the executive and judicial departments, gave a government that was strong enough for all the needs of the country for the first three-quarters of a century, and for a long time the government was in nearly every respect superior to any other, and in many important respects far better than any other. The administration has as a whole been cheap, able, firm in its policy, liberal toward its own citizens, and peaceful toward foreign nations. No such unbroken succession of able ministers of foreign relations has ever been seen elsewhere. The idea of foreign conquest has been repudiated. Louisiana (which included a claim to all that part of our country west of the Mississippi and north of Mexico, or New Spain, as it was in 1804), Florida, Arizona, and Alaska, have been bought; Texas, which was practically independent, was annexed by treaty; California and New Mexico (then including Utah and Nevada) were seized by arms, but paid for, and three disputes with Great Britain about our northern boundary have been settled peacefully by treaty.

While the general principles of the Constitution are

very liberal, there are some serious defects in the government, and the administration is terribly corrupt in its legislative and executive departments—far exceeding any similar evil in any country of Western Europe. Nearly all the offices are distributed once in four years, or oftener, as rewards for partisan service, and each party makes it a rule to defend its own representatives and malign its enemies. The officials having short terms to serve, and a powerful party to protect them, are in many cases ignorant of their duties, and intent on making money without being very particular as to the honesty of their procedure. In England, France, and Germany, on the other hand, the minor executive officers usually hold their places during good behavior, and have strong motives to learn their duties and perform them faithfully.

SEC. 237. *National Growth*.—One of the strongest proofs of the excellence of the American Government is found in the unexampled growth of the nation. From 3,929,214 inhabitants in 1790, the population had risen to 38,558,371 in 1870, an increase of ninefold in eighty years, or an average gain of thirty-three per cent. for each decennium. This is more than double the growth in England or Holland, and four times as rapid as that of several large states of Europe. A considerable part of the prosperity of the United States was due to immigrants who were drawn from Europe by the offer of low taxes, cheap land, white manhood suffrage, equal political rights, free schools, high wages, abundant employment, the certainty of relative social equality, and the hope of great profits in business.

The American Government publicly proclaimed its policy of attracting immigrants, and of offering them better conditions than they could obtain elsewhere. It

entered into the market as a bidder for men, outbid all competitors, and took the grandest prize ever won by political policy. From 1790 to 1800 the average annual immigration was in round numbers eight thousand, and in the subsequent decenniums to 1870, fifteen thousand, fifty-nine thousand, one hundred and seventy thousand, two hundred and fifty-nine thousand, and two hundred and forty-nine thousand respectively, the decline in the last decennium having been caused by the civil war. The entire number of immigrants from 1790 to 1870 was 7,803,865, four-fifths of them in the most vigorous years of life, and more than half of them strong, healthy, active, and intelligent men, skilled in the useful arts. These immigrants had all been bred at much expense by Europe, and the average cost of their production has been estimated at different figures from one to three thousand dollars; but if we take the former figure, and allow one hundred and fifty dollars to the person for the money and other property which they bring with them, we shall have a total of nearly \$9,000,000,000 added to the wealth of the country directly from that one source alone.

The indirect gain has been as great. These immigrants have on the average given many years of faithful and intelligent labor in developing the resources of the country, and they have besides contributed to it in their children more than one-fourth of the entire population. The immigrants and the children both of whose parents were immigrants, together numbered in 1870 more than fifteen millions, or about two out of five of all the inhabitants. But many of the remaining three-fifths are grandchildren, or great-grandchildren, of immigrants. Friedrich Kapp, who made a special study of immigration, accepted an estimate that the natural

increase by the surplus of births over deaths in the United States has been 1.38 per cent. annually. It is only 1.25 in England, 1.23 in Holland, 1.17 in Prussia, 0.74 in Russia, and 0.44 in France. At that rate the free population would have increased without immigration from 3,231,930 in 1790 to 8,435,882 in 1860; whereas with the help of immigration the figure was 27,489,662 in the latter year, leaving 19,000,000 as the surplus due to immigration directly and indirectly. Objection has been made to the rate of 1.38 per cent. as too low, but in any event more than half the present population of the nation is due to immigration since 1790.

SEC. 238. *Shipping*.—The long wars resulting from the French Revolution had a favorable influence on American shipping, which rapidly increased; and, when the United States were involved in a war with Great Britain, from 1812 to 1815, the American war-ships proved themselves equal to the British in fighting, and superior in sailing. The best models of sailing-vessels continued, until the middle of our century, to be American. The mercantile shipping of the country had risen in 1860 to five million tons, and would, within ten years more, at the previous rate of increase, have surpassed that of Great Britain, but the civil war, and the burdens of taxation placed on commerce, afterward inflicted terrible injury on the shipping interest, and the tonnage of the United States is now less than half that of Great Britain.

SEC. 239. *Gold and Silver*.—In 1770 the total annual production of gold and silver may have been thirty million dollars, including twelve million dollars from Mexico, and as much more from South America. The placers of the Ural, known to the ancients, were re-

opened in 1771 ; in 1816 the gold deposits of Central Siberia began to come into notice ; and California in 1849, Australia in 1851, New Zealand in 1857, and Nevada in 1860, all added much to the production of the precious metals from new sources, while Mexico, Chili, and Spain, enlarged their supplies. The general result is, that now we have an annual yield of about two hundred million dollars, or an increase of sixfold within a century.

The discovery of the gold-mines of California, in January, 1848, proved to be an event of world-wide importance. That country had been seized by the American forces in July, 1846, and was ceded to the United States by Mexico in a treaty signed in February, 1848. A month before the latter date the Americans discovered the placers of the Sacramento basin, and they washed out the gold in an abundance previously unexampled. The government threw the mines open, without check and without charge, to everybody ; adventurers rushed in from all quarters of the globe, the Americans outnumbering, however, those of any other nationality, and, in a few years, California had become the wonder of the earth, not less by the profusion of its wealth than by the rapidity of its agricultural development, and the rare skill with which the people had established political order, and applied the arts of engineering to the business of mining. The nation obtained an immense increase in wealth from the indirect influence of the placers ; the Pacific Ocean was filled with shipping ; a railway was built across the Isthmus of Panama, and across the continent, about latitude 41° ; Japan was opened to foreign commerce ; a line of steamers was established between New York and San Francisco, and another between San Francisco

and China, thus completing the girdle of regular steam-communication round the world.

SEC. 240. *Great Britain.*—Many British statesmen supposed and said, when the American colonies gained their independence, that Great Britain had received a check from which she would never recover, that thenceforward she would have to content herself with a subordinate position in the family of nations, and that she might consider herself fortunate if she could retain what she had and repel aggression. She had lost an extensive political dominion, the great future power of which was unquestionable; she had lost its exclusive trade, and she had added largely to her debt, which previously had been considered more than she could bear. The anticipated natural decline did not come. The American nation, strong with the help of its freedom, contributed far more to the trade, wealth, and intellectual and moral influence of England, than it could have done as a cluster of colonies. Now it was that Great Britain began to feel the benefit of Watt's invention. The genius of steam devoted his tremendous powers to the aggrandizement of England. The new machinery for the manufacture of woollen and cotton, and for the smelting, puddling, and rolling of iron, gave unexampled stimulus to industry and trade. The great superiority of England over other parts of Western Europe, in her coal-deposits, and her undisputed naval supremacy giving her most of the marine trade of Europe, contributed, with her monopoly of steam-engines, spinning and weaving machinery, large smelting-furnaces, puddling-furnaces, and rolling-mills, to fill her with riches. Her manufacturing products, her shipping, her exports, her imports, her revenue, her wealth, and her power, increased with great rapidity.

In 1793, when the national debt was \$1,195,000,000, Great Britain began her wars with revolutionary France, and, before she closed them, had added \$3,000,000,000 to it. And yet she continued to prosper steadily. Since 1815 her government has preferred the policy of peace, and ever since 1855 the custom of interfering in foreign wars has been abandoned, and war is henceforth to be declared only in self-defense. This course became a necessity in consequence of the formidable naval power of several other nations, and the evident inability of the British Government to protect its shipping and its colonies in many contingencies that might arise.

SEC. 241. *Political Progress.*—In the administration of Great Britain, many changes have been made within a hundred years. Ireland, which had had a Parliament subordinate to that of Great Britain, became a separate kingdom in 1780, under the British crown, with an independent Parliament, treasury, army, and navy; but as the officials were all Protestant, and mostly of the Saxon race, while four-fifths of the people were Celtic Catholics, the condition was considered dangerous, and in 1801 Ireland was incorporated with the larger island, as the United Kingdom of Great Britain and Ireland. The statutes, excluding all persons save Episcopalians from office, were repealed, except as to regents, chancellors, and viceroys, in 1828; and in 1829, and three years later, the "Reform Bill" was passed, extending the suffrage and equalizing the representation. Many districts, which previously had sent members to Parliament, though they had not fifty votes, and all those under the control of one person who owned the land, were disfranchised, and increased representation was given to the cities. Previously the House of Commons had been practically under the con-

trol of a hundred and thirty noblemen, who nominated a majority of the members. The reform was not carried without bitter opposition. Lord Wellington, the leader of the Tory party, declared that the passage of the bill would change the character of the government and destroy many of the peculiar and most valuable features of the British Constitution as it had been. The Commons, by a large majority, adopted the measure, but the king disliked it, and the Lords rejected it. The people became excited, and revolution was threatened. The cabinet gave notice that the bill must pass, and the crown would appoint liberal peers until there should be a majority in favor of the reform. The Tory lords, fearing that a liberal majority in the Upper House would favor other revolutionary measures, submitted, and passed the bill. Fearful as the reform was considered by the Tories then, it was decidedly behind the times; under it the right of suffrage belonged to only one man out of four in the rural districts of England, and only one out of twenty in Ireland. The votes had to be given orally, so that the employers and landlords could know who disregarded their wishes. The members of Parliament were not paid, and thus poor men were excluded. The Parliaments lasted seven years, unless sooner dissolved by the crown, and thus the popular influence was weakened. Representation was not distributed in strict proportion to the population.

The Tory predictions of national ruin, to follow the change in the constitution, were not verified. The spirit of the government remained the same as it had been before. The people continued peaceful; manufactures and commerce rapidly advanced. The democratic influence was not so pernicious as the aristocrats had feared. There was a continual agitation for more

reform. The overthrow of the American rebellion had a considerable influence in Europe. Republicanism was evidently not a failure, while despotic monarchies had proved to be neither steady nor strong. The necessity of conciliating the people became more and more evident. In 1868 the British Government withdrew its pecuniary support from the English Church in Ireland, and, in the same year, while the Liberals in Parliament were demanding an extension of the right of suffrage, the Tory ministry, seeing that the success of the measure was inevitable, carried a bill reducing the property qualification in such a manner as to double the number of voters. In 1872 the secret ballot was adopted.

SEC. 242. *English Literature.*—The triumph of Great Britain over France, the leading power of Continental Europe, in the Seven Years' War—a triumph accompanied by the conquests of Canada and of Hindostan, and undisputed naval supremacy—of course gave a great stimulus to national pride as well as industrial and commercial enterprise; and, as the genius of the people was not constrained by oppressive legislation, a great intellectual development followed. Oratory, poetry, history, romance, law, and science, bloomed with an unexampled luxuriance, which has continued to our own day; and now, with the help of contributions from America, the English language possesses the richest of all literatures, and promises to soon surpass all others combined. There is scarcely any of the highest qualities of genius that does not appear in its brightest phase among British authors. The boldness of their thought, the simplicity, vigor, and polish, of their style, the wide range of their learning, the comprehensiveness of their philosophy, the vigor of their

satire, the keenness of their wit, the generous breadth of their philanthropy, and their eloquent appeals to the noblest impulses of humanity on behalf of the oppressed, are as a whole unequalled in any other tongue.

SEC. 243. *British Empire*.—While Great Britain was thus prosperous, her colonies enjoyed an equal or even greater prosperity. Canada, when conquered in 1763, had 90,000 French inhabitants, who on account of national antipathy refused to join the English colonies in their rebellion, and remained faithful subjects. English immigrants soon began to settle in Upper Canada, and the population has increased so much that the Canadian Dominion, organized in 1867, and now including all British America, has 4,200,000 inhabitants, and a mercantile shipping surpassing that of any nation of Continental Europe.

Australia, first settled in 1788, increased very slowly in population until 1851, when the gold-mines were discovered by a returned Californian, and then the progress was very rapid. This island continent has now 1,600,000 inhabitants.

New Zealand, first settled by whites in 1838, did not become important until rich gold-mines were found in 1857, and now has 250,000 inhabitants.

The entire empire as a whole far exceeds any other known to history, possessing an area of 7,500,000 square miles, and a population of 244,000,000. It includes forty-eight colonies, and occupies 190 degrees of longitude, or more than half the circumference of the globe. Of its colonies twenty-three were conquered, or obtained by treaty after triumphant wars, from France, Spain, Holland, China, Hindostan, and the Maltese Knights. Great Britain itself, which holds this immense empire together, has only 119,000 square miles, and 24,000,000

inhabitants. Canada and Australia, the largest in area of the colonies, adhere to the empire merely as a matter of form, the government being practically independent. The connection is valuable as a bond of peace and sympathy, and as a claim for mutual assistance in case of emergency. China has a greater population, but is far inferior in wealth, intelligence, military power, commerce, manufacturing skill, and mechanical power.

SEC. 244. *France in 1780.*—The government of France was so weak and corrupt in 1780 that the country was on the verge of national bankruptcy. A large part of the land belonging to the Church and the nobles was exempt from taxation; the taxes were levied in a most oppressive manner on the poorer farmers; the collection of the public income was given out to favorites who retained large shares of it; and thus, while the majority of the people were suffering with extreme destitution, the court abounded with people who gained immense incomes by plunder. Gross demoralization and serious discontent were the result. Many observers predicted a violent change in the government. The conviction had become common that the Church must be overturned, no matter how much more went with it. Revolutionary ideas were freely expressed in most polished circles. The literary and scientific men who had acquired great influence were almost without exception advocates of radical changes. The success of the Americans in their revolution, and their alliance with France, made their political principles popular among the French, and in 1780 the fashionable dress of the people became democratic. The rich abandoned their powdered wigs, their knee-breeches, their silk stockings, their silver shoe-buckles,

laces, silk, satin, and velvet, as materials, and bright red, blue, and yellow, as colors, of their clothing; and assumed the heavy cloth and the plain colors worn by the common people.

SEC. 245. *Revolution of 1789.*—It was under such circumstances that the king convened six hundred commoners, three hundred nobles, and three hundred priests, to form a States-General. There had been no national assemblage for nearly two centuries; there was no familiarity in the nation with parliamentary usage; there was no recognized mass of rules, or record of precedents; and when the States-General convened, there was no law to determine whether there should be one legislative house, or two or three houses. The commons insisted on having only one, and after much disorder carried their purpose, though some of the priests and nobles refused to join them, and many others withdrew within a few months. The States-General first met on the 6th of May; on the 17th of June, the commons having gained over some of the nobles and priests, declared themselves the National Assembly, denying the authority of any other legislative houses. Meeting with no firm opposition anywhere, their claim and their supreme authority were soon recognized by everybody. They proved to be not only radical, but revolutionary. The king, nobility, and priests, offered just enough opposition to provoke and excite them to the utmost. On one occasion the troops excluded them from their hall. They went to another and took an oath not to separate till they had given a new constitution to France. The king went to their chamber, and ordered them to disperse, and to sit in three separate houses, according to their rank. He retired, and the nobles and priests obeyed, but the commons remained,

and when a master of ceremonies returned to remind them of the king's order, Mirabeau told him to leave; he had no right to speak there; he should tell his master that the National Assembly were there by the will of the people, and would stay until driven out by bayonets. Ten days later the king gave them the fullest recognition. A great excitement prevailed through France, and especially in Paris. On the 14th of July a mob stormed the Bastile, hateful as a fortress menacing the capital, and as a prison in which men who had offended courtiers had been incarcerated for years without trial, complaint, or crime. In the country the people attacked and burned the castles, and general disorder reigned.

On the night of August 4th, some of the nobles proposed to abolish certain feudal privileges, in the maintenance of which they were interested more than any other class. Priests moved to abolish tithes, and representatives of guilds demanded freedom for mechanical industry. All these reforms were carried amid remarkable enthusiasm. The sale of public offices, the judicial power of the high nobles over their domains, the gross inequalities of taxation, and primogeniture, were speedily overthrown. National citizenship, and equality before the law, were adopted. Nobility was abolished, and the use of hereditary titles forbidden. All the feudal obligations were extinguished, and the nation was set free politically. These changes, made within a year, caused great enthusiasm among the friends of freedom in other countries, but the monarchs and nobles were frightened, and it was not long before a coalition was formed to make war on France. Many of the French nobles fled to join the invaders, and the nation was in imminent danger. Paris fell into the

hands of a mob; the administration became the servant of the mob; reason and experience were overruled by fanaticism and folly. Aristocrats were declared public enemies, and aristocracy was proved by accusation and suspicion. Seventy thousand persons accused of treason were slaughtered, some hanged by the mob, some guillotined by order of courts, without proper trial, and some shot or drowned, by command of military officers. The season of slaughter continued for six months. Christianity having been repudiated, the Catholics of the province of Vendée rose in revolt, and they were subdued after a war in which 300,000 persons perished. Many of the highest officers of the army having fled, and every thing being in confusion, it seemed probable that the Austrians and Prussians would subdue France; but the republican soldiers fought with wonderful enthusiasm, and when a few years of war had given them discipline, and enabled them to develop capable officers, they became the most formidable forces the world had ever seen. With Napoleon at their head, they went as conquerors to Madrid, Vienna, Berlin, Munich, Dresden, Warsaw, and Moscow, but they made a disastrous retreat from the last city, and three years afterward, in 1815, Napoleon was a prisoner on the island of St. Helena (where he remained till his death), and the English, Russians, Austrians, Prussians, and Swedes, whose united forces had been exerted to the utmost against France, replaced the Bourbon dynasty on the throne, where it remained fifteen years.

SEC. 246. *Later Revolutions.*—But it never forgot an injury, and never learned by experience, and in 1830 Paris rose in rebellion, drove out Charles X., demanded constitutional government, and placed Louis

Philippe, of the house of Orleans, on the throne. He was a wise and able sovereign, and in his reign the country enjoyed peace and prosperity. But he did not concede enough to satisfy the people of Paris, and in February, 1848, he was expelled, to make room for a republic, the control of which passed at first into the hands of a party of socialistic theorists, who knew little of law, and had no experience in government. They started with the idea that it was their duty to provide work for the unemployed poor, but the result was the squandering of a large amount of public money, in bribing beggars, idlers, and villains, who rebelled when the folly and injustice of paying became evident to all, and their corrupt incomes were cut off. They were suppressed by force, but their opinions with some changes continued to gain strength, and they broke out again in Paris soon after Napoleon III. was dethroned.

In 1851 the republic was converted by usurpation into an empire, with Napoleon III., nephew of Napoleon I., as emperor. For eighteen years he reigned, and France never enjoyed such prosperity. The tram-mels on trade were removed; the country was filled with railroads and telegraphs; Paris was beautified by widening many important streets and rebuilding the houses; the city became the main pleasure-resort of the world and the chief centre of fashion and luxury; the political and military leadership of France in Continental Europe was unquestioned; but in an evil hour Napoleon undertook to break up the German Confederation, and within two months he was a prisoner; the French armies had been beaten and dispersed, and France could meet the invaders nowhere, save behind her fortifications; Napoleon was expelled; the country

again became a republic; and peace was secured by the surrender of the partly German provinces of Alsace, and Lorraine, and by the payment of one thousand million dollars indemnity to Germany.

The government has been so unstable since the Revolution of 1789 that the country has no fixed form of administration. No cabinet, however, has attempted to establish primogeniture, entail, or the ancient feudal privileges. The third Napoleon, though he took the throne by usurpation, requested the people to vote whether he should keep it, and out of seven million five hundred thousand votes he had seven million. At every election of members of the Chamber of Deputies his supporters had a large majority. This body was chosen by manhood suffrage, and its consent was requisite to the levying of every tax and the adoption of every law. While arbitrary measures were sometimes used against persons who endeavored to provoke political disturbances, the people generally were secure in their persons and property. The administration of justice and the general management of public affairs were excellent. The people have thus become accustomed to a good government, and will not easily submit to any other.

SEC. 247. *French Influence.*—In the wars of the Revolution the French soldiers carried with them their hatred of feudalism and class privilege, and they established republics of brief duration in Holland, Italy, and the German provinces on the Rhine. They inoculated all Western Europe with republican ideas. When the Bourbons were expelled in 1830, the excitement of insurrection against tyranny spread to Poland and several other countries. The proclamation of the French Republic in 1848 set Germany, Italy, Hungary,

and Poland, ablaze with patriotic or democratic excitement, and before midsummer of that year it seemed probable that all Western Europe was about to become republican; but, within three years, all was quietly monarchical as before. In 1859 France assisted the King of Sardinia to conquer Lombardy, and this was the start from which arose the kingdom of Italy. France has been the leader of Continental Europe, for the last eighty years, in political liberty.

When Paris was besieged by the Germans a considerable part of the defensive force of the city was supplied by associations of the mechanics and laborers of the city; and, as they bore the burden, they demanded the power, and, after the treaty of peace, they assumed control of the city government, avowed a communistic policy, by which wealth should be equalized, and the power of the government used for the inauguration of fundamental reforms in the distribution of property, the rewards of labor, and the organization of society. This was a defiance to the nation, and a war ensued between Paris and France, ending with the overthrow of the Communists, but not until after they had burned many prominent buildings and murdered many prisoners with a barbarism worthy of the Reign of Terror in the French Revolution. Their conduct excited general horror throughout Christendom, and communism and the policy of the International Society became, in the general opinion, synonymous with anarchy, rapine, and social ruin.

SEC. 248. *Germany*.—Germany suffered severely from the French Revolution. The first Napoleon overwhelmed Austria and Prussia by his great victories of Austerlitz and Jena, and subjected them to terrible humiliations and losses; but, in the midst of

disaster, there were some compensations. The number of independent principalities was reduced from three hundred to forty, and the Prussian Government undertook reforms which secured the restoration of the national greatness after a lapse of half a century. Serfdom was abolished in such a manner as to build up a prosperous and independent body of farmers, and the middle class was strengthened; a system of universal and compulsory education, far superior to any other in Europe, was established; and these reforms were afterward followed by the adoption of a peculiar military system, in which every man was carefully trained as a soldier, and the majority of the men could be called into the army at a few days' notice. The importance of these measures was not understood abroad until after the war of 1870.

The French Revolution of 1848 awakened great enthusiasm in Germany, but the attempts to establish republican governments and national unity failed, and the kings and princes were as despotic afterward as before. Twenty years later the popular cause was more successful. When the kingdom of Italy was built up in 1860, on the ruin of a multitude of principalities, the Germans were profoundly moved by the example. The hope of national unity had long filled their minds, but the political obstacles seemed insuperable. Gradually the idea gained favor that Prussia was the nucleus about which Germany should be consolidated, and the Prussians were prepared to seize by arms any opportunity that might be presented. Their army was the best in the world; they skillfully appealed to the national sympathies of the Germans generally; and they took advantage, with much tact, of every turn to gain strength for themselves. In 1864 they united with the

Austrians to take Schleswig-Holstein, a German dukedom, from Denmark; in 1866 they conquered Austria, drove her out of the German Confederation, annexed Hanover and several minor states; and, in 1870, with the help of Southern Germany, overwhelmed France, annexed Alsace and Lorraine, and reëstablished the German Empire with the King of Prussia as emperor. These great and sudden triumphs could not have been gained without the cordial coöperation of the people, who were conciliated by the establishment of constitutional government. Thus, a great nation of thirty-eight millions has been built up upon a solid basis. The princes have found that there is no safety for them without the support of their people, who will not give it if the government be despotic. Austria, which had been noted for the grossness of its despotism, was compelled to follow the example of Prussia and establish a national legislature chosen by manhood suffrage, with extensive political power.

SEC. 249. *German Literature*.—About the middle of the eighteenth century a great intellectual revival commenced in Germany. Divided up into numerous despotic principalities, there was a people without a nation, and a system of government without popular rights. After German literature bloomed out in its magnificence, Richter said that the English held dominion over the sea, France on the land, and Germany in the air. Another German author boasted that his countrymen enjoyed unlimited freedom in the realm of dreams.

The country which had in two centuries taken very little part in literature and art, suddenly blossomed with wonderful luxuriance in a number of different branches, especially in those requiring deep study.

The Germans are recognized as the most thorough of all scholars. They have been especially successful in linguistic, historical, and critical studies. Their universities are above all competition. In every branch of science, and the useful and ornamental arts, they are eminent. Comparative philology owes its origin to Bopp, a German. Liebig founded agricultural chemistry. The spectroscope is a German invention. Alexander Humboldt was the most comprehensively learned of all scientists. No man is considered thoroughly educated in any branch of science unless he has made himself familiar with the latest German publications relating to it. Nor is it merely in the heavy intellectual work that the Germans succeed. They are equally successful in the fine arts. Music has become a German province, and a half-dozen of the greatest composers are all Germans. The art-schools of Munich, Dresden, and Düsseldorf, rank with that of Paris above all others. In poetry as a whole Germany ranks next to England, and in some points—especially in translations from other tongues—she is superior. Goethe is the greatest of all poets, and he is as far above Milton in beauty and grace of style, brilliancy of thought, and sympathy with the prevailing opinion of our time, as he is above Byron in compactness, fullness of suggestion, and careful polish of style.

General education has kept pace with the progress of the higher learning, and the Germans are now far superior to the people of any other part of Europe in their common schools.

SEC. 250. *Poland*.—In the middle of the eighteenth century Poland had become an international nuisance. Its government was little better than an anarchy. The great majority of the people were serfs in abject feudal

bondage; the nobles were unable to agree among themselves, and unwilling to submit in peace to any government. National dissolution had been confidently predicted by many intelligent observers, and at last it came. Some of the Catholic nobles persecuted the adherents of the Russian or Greek Church, and they appealed to the Empress Catherine II. for assistance. She had other grounds of complaint, and she formed a coalition with the King of Prussia and the Emperor of Austria, to divide part of the territory of Poland. Other nations did not venture to interfere, and the division was made. Twenty-three years later another division followed, and Poland disappeared from the map. The Poles were in revolt frequently, but were conquered and severely punished on every occasion, and now the idea of Polish nationality may be considered obsolete. At the time of the first division Poland had 260,000 square miles of area, and her former territory has now 24,000,000 inhabitants, of whom 16,000,000 belong to Russia, 5,200,000 to Austria, and 2,800,000 to Prussia.

SEC. 251. *Russia*.—Russia gained much importance by the annexation of a large part of Poland, and in the wars of the French Revolution she at last appeared as a power of the first rank, and became so formidable that Napoleon thought nothing but republicanism could prevent her from obtaining a controlling influence over Europe. Her area has increased since 1770 from 6,500,000 to 8,000,000 square miles, and her population from 19,000,000 to 80,000,000. The condition of her people has been greatly improved. The abolition of serfdom was decreed in 1867, to be carried into effect gradually, and complete liberty does not yet reign. This reform gave much offense to the Russian

nobles, although previously, on account of their cruelty to their serfs, seventy were murdered and their castles burned every year, on an average. Serfdom had been abolished in Poland about Warsaw in 1807, under the influence of Napoleon. Russia has now nine thousand miles of railroad, and adds several hundred miles to her system every year. The construction of the railroads in Southern Russia has given a great stimulus to the cultivation of wheat, and the export to Western Europe has quadrupled within a few years. The farmers have found it necessary to introduce improved machinery, and American sowing, reaping, and thrashing machines, and farm-wagons, are common.

The Russians have a strong national pride, and with reason, for they possess an immense territory, stretching from the Baltic to the Pacific. Their white population is greater than that of any other nation, and they have room for three or four times as many. They comprise the great bulk of the Slavonian family, which numbers 90,000,000 in all. Of these, 16,000,000 are in Austria, 3,000,000 in Prussia, and 6,000,000 in Turkey; and many under the German and Turkish rule are discontented, and would prefer to be united with Russia in one great Panslavonic empire.

SEC. 252. *Spain*.—Spain was still a great empire in 1770, but her government was disgracefully despotic, corrupt, and inefficient; trade was hampered, the people were kept in ignorance and superstition, and the nation did not share the intellectual and industrial activity which at that time gained new strength in England, France, and Germany. She was conquered by Napoleon, and then rescued by the English, and, soon afterward, her American colonies began to revolt, and, before 1825, she had lost all her possessions on the Ameri-

can Continent. In 1830 a dispute arose about the cession between the daughter of the deceased Christina, and his nephew, Don Carlos, the latter denying that a woman could reign in Spain. At intervals, for forty years, the Carlists, or adherents of Carlos and his son of the same name, have maintained a civil war, but without success. In 1870 Isabella, daughter of Christina, was expelled, and an Italian prince, Amadeus, was placed on the throne, but in 1873 he resigned, and a republic was proclaimed. Spain still retains Cuba, Porto Rico, and the Philip Islands. The people in the mother-country and colonies are far behind the English, French, and Germans, in their education, commerce, and industry; the country has no prominent contemporaneous authors, artists, scientists, or inventors, of high repute beyond its own limits.

SEC. 253. *Spanish Colonies*.—The Spanish colonies in North and South America gained their independence at various times, from 1820 to 1825; established governments republican in name, and some of them divided into several separate states, so that there are soon fifteen distinct Spanish-American nations. Spanish territory in North America was one colony while subject to Spain, and now forms six nations. The wonderful progress of the United States had led Spanish Americans to anticipate great benefits from independence. The evils of Spanish rule were numerous and unquestionably great. The colonies were managed for the benefit of the mother-country; they were forbidden to manufacture articles produced in Spain; they were forbidden to trade with the ships of the nations which had control of the world's commerce; they were not permitted to receive immigrants.

other countries; and they could not extract the precious metals without paying one-fifth of the gross yield to the Spanish king, before 1770, and one-tenth afterward. The rule of England in her American colonies had never been so oppressive or selfish, and yet when they became independent and removed the restrictions from manufactures and commerce, there had been a development of wealth and a growth in power and population unexampled in the world. The Spanish Americans expected similar results in their country. The Mexicans were especially sanguine; they had the most productive mines of precious metals in the world. The annual yield had increased, between 1770 and 1800, from \$10,000,000 to \$25,000,000; and it was supposed that this rate of increase would continue, especially if the royal tax of ten per cent. were abolished. But even, if the production should not pass beyond \$25,000,000, that alone would entitle Mexico, with its large area of fertile soil, and its great variety of climates and productions, to soon become one of the leading empires of the world. And such ideas were current in Europe, too, especially in England. The most extravagant expectations were entertained there about the Mexican silver-mines. Not less than \$25,000,000 were invested by British capitalists in Mexican mines, in the anticipation of tenfold profits; but all the bright hopes were doomed to disappointment.

SEC. 254. *Latin America*.—The Spanish Americans do not know how to enjoy freedom; their governments became anarchies or military despotisms; civil war was the general condition. Immigration was repelled by popular prejudice, religious intolerance, and the lack of roads, and the unwillingness of the people to adopt improved machinery. Mexico became a re-

public in 1823, and in the fifty intervening years she has had twenty-one different constitutions and fifty-six administrations; and in only one case—that of Lerdo de Tejada—has a President been elected in accordance with the forms of law and allowed to take his seat without serious armed opposition. Out of the fifty-six administrations more than fifty were established by arms, or succeeded others overthrown by arms. A large number of the Mexican Presidents have died by violence. The population of the country has increased not more than twelve per cent. in half a century; and education, trade, manufactures, and mining, have made no progress. The treasury is bankrupt; the national weakness was exposed in a remarkable manner when an American army of twelve thousand men traversed the heart of the country within a few months in 1847, and four thousand men took the capital, which had extensive fortifications, an excellent situation for defense, an army of twenty thousand men to defend it, and thirty thousand adult male citizens besides. Lately, however, a railroad has been completed from Vera Cruz to the capital, and other roads are projected to connect with the railroad system of the United States. These will attract strangers and settlers, stimulate trade, and give additional securities for peace.

In South America the most prosperous and peaceful nation has been Chili, which has been governed with moderation and prudence, and has made much progress in agriculture, manufactures, railroads, and mining. Its government has been better than that of any other Spanish community for the last twenty years. Peru has built many miles of railroad, but has burdened herself with heavy debts. Colombia, Venezuela, Ecuador, Bolivia, the Argentine Republic, Uruguay, and Para-

guay, have made little progress. Brazil became independent of Portugal in 1820, and set up an imperial government, but has made no remarkable progress, save that in 1847 it provided for the ultimate extinction of slavery. The Latin-Americans have made no great book, no great work of pictorial or plastic art, no great invention, nor any great discovery, save the application of mercury in silver-mining. With fifteen thousand miles of coast-line they have no shipping, and with eight million square miles of area they have not attracted so many immigrants in half a century as the United States in five years. And yet they have two million five hundred thousand square miles in a temperate clime, with many natural advantages, and there is no reason to believe them lacking in the intellectual or moral qualities required for the maintenance of a high position in civilization.

SEC. 255. *Italy*.—Italy was, in the middle of the last century, the most miserable, relatively, of all the European nations. Divided up into twenty states, subjected to the most cruel despotism, and scorned as a mere geographical term, it had no weight in either war or politics. The French Revolution promised relief, and brought it for a little while, but, after the overthrow of the first Napoleon, the tyranny became worse than ever; and Venice, which had before been free, was brought, with Lombardy, under the Austrian yoke. But the sentiment of nationality gradually gained strength, and, by skillful diplomacy, Count Cavour, the prime-minister of the King of Piedmont, managed to secure the favor and assistance of the third Napoleon to drive the Austrians out of Lombardy. Piedmont had been the only constitutional monarchy in Southern Europe for ten years, had been the refuge of oppressed

liberals from various parts of the peninsula, and had gained the affections of the Italians in Central and Southern Italy long before they had an opportunity of showing their feelings. But, as soon as Lombardy had been secured by the help of the French, the Italians of Sicily and Naples, and several minor principalities, rose, drove out their despots, and placed themselves under the Piedmontese king, thus constituting the kingdom of Italy, which completed its organization in 1871, when Rome was seized and made the capital, the temporal power of the papacy being abolished. The kingdom now has a population of twenty-five millions, and is gradually improving in its intellectual and industrial condition, but in literature, science, and the useful arts, it is far behind the states north and south-west of it.

SEC. 256. *Holland*.—The Dutch, having been compelled to join Napoleon in some of his wars against England, suffered very severely in their commerce, and lost Ceylon, one of their most valuable colonies. In 1815 Flemish and Dutch Netherlands were united into one kingdom, but the people of the two districts differed in language, religion, and ideas of government; and in 1830 the Flemish provinces revolted and established the kingdom of Belgium, which, being more favorably situated for railroad traffic, has now run ahead of Holland in commerce and industry. The two states are among the most densely settled and prosperous of Europe, but have little political significance, and seem to be waiting for the time when they will be absorbed by France and Germany, to which they are respectively allied.

SEC. 257. *Scandinavia*.—The population of Sweden has doubled within the last hundred years, but within

the last five years has ceased to increase, and, from 1867 to 1869, suffered a decrease of forty thousand by emigration to the United States, where the Swedes soon find themselves at home among settlements of their own countrymen. About the beginning of the century the kingdom had to give up Finland (now containing eighteen hundred thousand inhabitants) to Russia, and its small territory south of the Baltic to Germany, and was thus finally restricted to the Scandinavian peninsula and a few islands. The legislative authority, from 1809 to 1865, was intrusted to four Chambers, the first representing sixteen hundred noble families, the second twenty-two hundred priestly families, the third thirteen thousand burghers, and the fourth four hundred thousand farmers; and, as no law could be adopted until it had passed through the four Chambers, the sixteen hundred nobles had as much weight in legislation as the four hundred thousand farmers, one of the former being equal in influence to two hundred and thirty of the latter. This condition of affairs caused great dissatisfaction, and in 1865 the nobles and priests were compelled, by public opinion, to consent to a reform of the constitution. The legislative power is now held by two Chambers; one of nobles, the other of commoners. Nobody can be a member of the House of Nobles unless he has a large landed estate, and an income of about four thousand dollars annually from his rents. The Lower House consists of one deputy for every ten thousand inhabitants in cities, and one for forty thousand in the country districts. The southern end of Sweden is 55° north latitude, and the total area of land cultivated in gardens and grain-fields is six million acres. A few years since, out of twenty-eight hundred and five adult male nobles,

thirteen hundred were civil, military, and naval officials.

Norway, like Sweden, has doubled her population within one hundred years, but has now reached a stationary condition. The present number of inhabitants is fifteen hundred thousand. The legislature provided, in 1829, for the abolition of the special privileges of the nobility, and in 1839 for the abolition of guild tyranny. Now all Norwegians are equal before the law. The country was subject to Denmark previous to 1814, in which year it was given, by treaty, to Sweden, but the Norwegians resisted the transfer and obtained national independence, although they recognize the Swedish monarch as their king.

Denmark was a formidable naval power in the middle of the last century, but she has gradually declined, until now she is powerless for aggression. Her navy was destroyed by the English in their wars with Napoleon; the southern part of the peninsula was taken by the Germans. The population is now less than two millions.

SEC. 258. *Portugal*.—Portugal occupies an unimportant place in the art, literature, and political and military influence of Europe. Its weight has scarcely been felt in the conflicts and progress of mankind in the last hundred years. It has, however, prospered, for the population has increased from eighteen hundred thousand in 1732 to four millions at the present time. In 1820 Brazil became independent, and that country, with an area of four million eight hundred thousand square miles, and twelve million inhabitants, is now the chief seat of Portuguese intelligence and industry.

SEC. 259. *Turkey*.—Turkey has declined relatively as a military power since 1770, and has gained little

otherwise. In that year, and afterward, in 1792, 1805, 1812, and 1829, she had to give up territory to Russia. In 1825 Greece became independent, and since then Roumania, Servia, and Egypt, have been tending toward independence. The variety of nationalities and religions among the people, and the scattered form of its territory, have prevented harmony and obstructed progress. Its area includes eight hundred thousand square miles in Asia, including Mesopotamia, Armenia, and nearly all Arabia; eight hundred thousand in Africa, including Egypt and the Mediterranean coast to Algeria, and two hundred thousand in Europe. Its population numbers forty-four millions, of whom eighteen millions, including two million Turks, are in Europe. The despotic and corrupt government, popular ignorance, and fanaticism, the expectation of renewed aggressions and probable conquest by Russia, and remoteness from the channels of trade, have prevented industrial progress; but, within the last ten years, many indications of improvement have appeared. The Suez Canal, opened in 1869, has brought a large traffic through the Mediterranean, between Europe and Asia. Numerous railways and irregular works have been undertaken in Egypt, and the cultivation of cotton has become profitable there. The government of the sultan tends toward the adoption of liberal principles, and constitutionalism has been spoken of with much favor. The sultan visited France and England in 1867, and made a speech in London declaring that he believed in "progress." The situation of the territory, with more than eight hundred thousand square miles in Europe and Asia, between latitudes 30° and 40°, extending from Austria to Persia, and on the shortest route from the Mediterranean to Hindostan, has brought a large trade through

the Turkish Empire, and will compel the construction of railroads to connect the Persian Gulf with the Austrian and Russian lines.

SEC. 260. *China*.—From 1640, when Christianity was forbidden in China, only one port, Canton, was left open in that country to foreign commerce, which was subject to such restrictions that it advanced very slowly. The exclusive privileges of the East India Company ceased in 1834; the competition of British traders led to an increase of the traffic, but it also led to a public violation of the Chinese laws, prohibiting the importation of opium, and some of the opium-ships and cargoes were confiscated. The British Government, unwilling that its people should lose the enormous profits on this drug, made war on the Chinese in 1842, compelled them to admit it, to pay an indemnity for the stocks destroyed, and to throw open four other ports besides Canton. From this time forward the commercial intercourse between China and Christendom rapidly increased, and, soon after the mines of California and Australia were discovered, large numbers of the Chinese migrated to those countries. China had another war with Great Britain in 1856, and still another with Great Britain and France in 1860, when Peking was taken, and the Celestials were compelled to admit foreign ministers to their capital. The Chinese at last perceived that the policy of exclusiveness was impracticable, and that they must learn the useful arts from Europe: so they have, of late years, sought to establish a diplomatic intercourse with the leading Christian powers; have employed Britons and Americans to train their troops; have undertaken to manufacture improved arms, and have exhibited a disposition to encourage the introduction of European and

American machinery, and methods of working. The Chinese in California and Australia have shown a great capacity for managing machinery, and for working by the most approved methods; and there is no doubt that they will soon reach a very high place in manufactures. Their country is, next to the United States, the richest part of the world in coal; they have an abundance of iron; and they need nothing but time and training to take a high place as a manufacturing nation.

SEC. 261. *Japan*.—The Japanese were, for several centuries, more exclusive than the Chinese. They allowed no foreigners to visit their empire save the Dutch, who were restricted to a couple of vessels in a year, and those could touch only at a small and secluded island. The Americans, in 1853, sent a fleet to break through this exclusiveness, and the Japanese, satisfied of their inability to resist the demand, submitted to open several of their ports. The trade and industry of the empire, and the pride and interests of the nobles, were disturbed by foreign influence; and an attempt was made in 1858, by some of the daimios, to expel the foreigners, but it failed, and the leading men soon afterward showed a zealous desire that their people should adopt the Euraryan ideas and plan of life. Many young men were sent to America and Europe to be educated; Euraryans were employed as teachers in the schools, as instructors in civil offices, and as trainers in the army; diplomatic agents were sent to foreign countries; steamships and improved arms were bought; manufacturing establishments were erected; the construction of railroads and telegraphs was commenced; the slavish exclusiveness of the emperor was abandoned; the feudal power of the high nobles was restricted; a national legislature was established; and the incon-

venient fashions of dress and hair-dressing were abandoned, and even the religion was amended. No other revolution, so sudden and radical, and at the same time so peaceful, is recorded in history.

CHAPTER VII.

REVIEW.

SEC. 262. *No Golden Age.*—Mankind have never been contented, nor had reason to be, and have had many traditions of a golden age, in which happiness was perfect and universal; but the historian finds no evidence to justify the tradition. There have been times when the people of certain countries fared much worse than their descendants did, but the general drift has always been toward improvement. It is said that the English laborer cannot support a family now so easily as his ancestor could three centuries ago; and this may be true, not because he does not earn so much in proportion to the price of wheat, but because he now demands much in the way of clothing, lodging, education, and amusement, which his forefather never thought of getting, and which, even with great wealth, he could not have purchased.

SEC. 263. *Civilization natural.*—Many authors have spoken of savagism as the “natural state” of mankind, as if barbarism and civilization were unnatural and pernicious. As well might we say that childhood is the natural state of the individual man, or the caterpillar condition the natural state of butterflies. Savagism is the lowest, the most brutal, and, as a whole, the unhappiest phase of culture. It is usually accompanied by the worst of all political evils, the lawless

dominion of individual tyrants, in the lowest depths of ignorance, superstition, selfishness, and cruelty, holding their authority by brutal strength and skill in murder. War, the greatest evil of higher conditions, slavery, and polygamy, are common among savages, without the checks that mitigate their horrors in barbaric and civilized nations. In its worst forms, savagism is the sum of all crimes. The most fearful evils to which mankind are sometimes subjected in other states of culture frequently appear, or are permanently attached to this, including anarchy, treason, murder, famine, gluttony, gross rudeness, the most cruel oppression by the strong, the bitterest humiliation of the weak, and crimes numberless, nameless, and shameless.

SEC. 264. *Barbaric Tyranny*.—In barbarism, the tyranny, more or less anarchical, of savagism, is systematized and legalized, with mitigations in some points and amplifications in others. It establishes law and classes of officials, among whom custom and opinion acquire influence to check the arbitrary will of despots. Barbarism usually implies nationality, a political organization superior to that of the tribe. Polygamy, slavery, and caste, which had their origin in savagism, are extended and secured. Religion is made more complex, is brought into intimate connection with the government, and is used to approve the social and political institutions, and the authority of the dynasty. The priests and kings are installed and consecrated in the name of the gods, and curses are invoked upon those who would defy the divine decrees by rebellion or reformation. Reason and liberty are denounced as the children of the devil; while implicit acceptance of the letter of the ancient traditions and the most abject submission to the inherited despotism are the

highest duties, blessed in this world and the world to come. In Persia, Assyria, Egypt, Hindostan, Anahuac, and barbaric Peru, we find similar superstitions and pretensions of piety predominant among the ruling classes. The conquerors represent themselves as the most dutiful servants and vicegerents of their national gods, in obedience to whose commands, and out of regard for whose glory, they administer their governments, preserve their ancient institutions, conquer foreign nations, slaughter their adult and male captives, and keep the girls for slaves.

SEC. 265. *Asceticism*.—In barbarism we first meet asceticism, which is hostile to freedom, education, the accumulation of wealth, and many of the influences that contribute most to progress. The ascetic banishes from his mind, as far as possible, all worldly considerations, and all the affections that bind him to this life. Pleasure is a sin ; and wealth, matrimony, learning, and political honor, are dangerous, because they develop pride of character, or lead their possessor to attach importance to this life. Poverty, ignorance, avoidance of the other sex, humility of station, and uncomplaining submission to the hardships that belong to the lowest station of life, are among the chief ascetic virtues. Mechanical inventions, scientific discoveries, the accumulation of wealth, the overthrow of political tyranny, the development of literature, and public and private amusements, which characterize our modern life, are all due to energetic discontent, a feeling prohibited by asceticism, and inconsistent with the idea that this world should be regarded only as a place of trial and a vale of tears. The two great powers of modern progress are the desire to accumulate wealth and the thirst for knowledge ; and both are especially prohibited and

condemned by asceticism, as vain and dangerous to the eternal welfare of the soul. The highest virtue of modern society—that virtue about which all the others cluster, and from which they all gain strength and continued support—self-respect, is especially hateful to asceticism. It is declared to be one of the most serious of all offenses, and more detestable than the worst of crimes.

SEC. 266. *China in Culture*.—The position of the Chinese in the history of culture is very singular. They showed a most remarkable capacity in reaching semi-civilization long before all other nations, and in having hitherto been unable to go any further. Their law reserves its highest honors and offices (except those of the imperial family) for learning and talent, and provides for discovering them by careful and frequent examinations; but the result is a most lamentable failure, for the country has never had a learned man, nor a prime-minister distinguished for ability. They had a policy of peace, and exalted the civil above the military authority a thousand years in advance of the Euraryans. They printed books before the Printing Age, but never had alphabetic types; they made paper, but had no pens; they had the magnetic needle, but did not know how to poise it on a pivot in the mariner's compass; they invented explosive powder, but could not use it in fire-arms; they had canals, but no locks; they discovered the value of inoculation, but never rose to vaccination; they cultivated cotton for thousands of years, but invented no cotton-gin. Their needle, powder, canals, inoculation, and cotton cultivation, had scarcely become known among the Euraryans before they were supplemented with improvements that have proved of inestimable advantage to the race.

The stationary condition of the Chinese, after they had arrived at a stage far in advance, in many respects, of all other nations twenty-five hundred years ago, must be attributed mainly not to a lack of capacity for progress, but to the cramping influences of their crude language, their syllabic hieroglyphics, and their memorizing system of education. Their brightest men were compelled to wear out or dull their faculties and consume their time in studies that were of no practical use; and success at last in their competitive examinations was reserved not for the ablest, but for those who could remember most of the words of books remarkable not for genius but for antiquity. The Chinese have for ages had a great horror of new ideas, and they are now paying the penalty, in finding themselves relatively barbarians in an age which has advanced far beyond them.

SEC. 267. *Pelasgian Insecurity*.—The ancient civilization of Greece and Rome was overthrown because much of it was mainly an artistic polish over the surface of society; it had no important industrial, military, or political superiority over barbarism, and its benefits were confined to a few cities, and to a small proportion of the population. It had made no noteworthy addition to the useful arts. It invented no great improvement in working wood, iron, or stone, no great labor-saving machine, no new vehicle to give cheaper or more rapid transportation, no new weapon. The Greeks and Romans were superior to the barbarians in poetry, the drama, sculpture, architecture, painting, and moral and political philosophy; but in the art of war—which has ever been the most important of all arts for the preservation of national independence—their superiority was not great enough to save them

from subjugation and ruin. The Teutons and Arabs knew enough of tillage and pasturage to support a large population, and they had an abundant supply of arms and armor equal in quality to those of the Romans, whose troops had lost their discipline, and whose society was corrupted by the slavery or abject poverty of the multitude, and the harsh tyranny of the few. The victorious barbarism was in some respects superior to the vanquished civilization.

SEC. 268. *Civilization and Freedom.*—In civilization the servitudes of barbarism are broken down, and reason, liberty, justice, and peace, acquire or begin to acquire authority, for the acquisition is not yet complete. When we compare ancient Greece and Rome with Assyria, Babylonia, Egypt, and Hindostan, we are struck at once by the difference in the matters of caste, polygamy, political despotism, and ecclesiastical influence. Among the barbarians the priests were a separate and hereditary class, holding great wealth, possessing nearly all the learning, keeping the records, and exercising much influence over the government; the people were divided into castes, the great majority being in the most abject class; polygamy was recognized by custom and law; and the authority of the monarch was absolute or nearly so; and such limits as existed were fixed by ecclesiastical tradition, and were not based on the right of a considerable class of freemen or nobles to be consulted in orderly meetings, acting by a majority of votes. Among the Pelasgians, on the other hand, if caste had ever existed, it had been overthrown before they came within the range of history: their religion was not used as a shield for tyranny; their priests were not a separate class, and they sought no political influence in their ecclesiastical capacity;

their popular opinion had a special hatred for despotic government; their political power was intrusted, in nearly every city, to a large class of freemen or nobles; public affairs were controlled by public meetings, in which arguments were conducted according to orderly rules, and the majority of votes fixed the decision. The dignity of the freeman and his right to be protected against torture or mutilation, humiliating ceremonies, arbitrary arrest and execution, were recognized, and polygamy was forbidden.

Buckle says truly that the chief obstacle to progress is "the protective spirit," which leads one class of men to hamper the liberty of a nation. All the pernicious political, social, and ecclesiastical systems, and oppressive demands of public prejudice, are the outgrowths of this spirit, which enslaves subjects, low castes, and women, and deprives them of the opportunities of education, and of the freedom of thought and speech after they are educated. It is based on the idea that it is proper and politic that John Smith should prescribe, even in matters which have no direct bearing on morality or social order, what John Brown shall or shall not do. In other words, that because Smith has the political power he should use it, on the assumption that he is a better judge of Brown's interest than Brown himself; that he can take better charge of such of Brown's affairs as can be managed by the government than Brown himself would; and that the narrower the scope within which the folly of Brown can be restricted, the better for Brown's temporal and eternal welfare.

The spirit of liberalism, rationalism, or progress, which is antagonistic to that of protection, and has led to all the political, social, and ecclesiastical improvements of civilization, is thus expressed by Mill: "The

only purpose for which power can be rightfully exercised over any member of a civilized community against his will is to prevent harm to others." Many of the scientific and industrial improvements are also due to this principle; for the protective spirit encouraged neither investigation nor that money-making zeal which has been the chief stimulus in the advancement of the useful arts. While every step forward in civilization has been made in defiance of the protective spirit, some breaks in the defenses of that spirit have not been progressive, but anarchical, and the genius of humanity had to turn back to regain the safe path of progress. Such instances occurred in the Anabaptist insurrection in Germany, soon after the opening of the Reformation; the Reign of Terror in France, in 1793; and the dominion of the Commune in Paris, in 1871.

SEC. 269. *Antiquity and Steam.*—If we compare the civilization of 1870 with that of 450 B. C., we find many remarkable differences. Slavery has disappeared; the leading civilized states, instead of being each composed of one city, with a little adjacent territory, have become extensive regions; the highest culture of the age is not now limited to a narrow strip of coast along the Eastern Mediterranean Sea, but includes all Europe and America, besides parts of the other continents; heathenism has given way to Christianity; the range of sympathy and association is no longer restricted to those who speak one tongue, but includes the whole race; the highest political authority in popular governments is exercised not by the people directly, but by their representatives; and the press, steam, cheap iron, telegraph, gas, photography, glass, chimneys, coal, labor-saving machinery, and a thousand other influences,

combine to make our mode of life differ from that of the Athenians in the days of Pericles.

There is a vast difference between ancient and modern times in the conception of progress. The Athenian considered the social and industrial relations of his time to be permanent. Of science he knew little or nothing; machinery was of no importance; inventive genius had no place in the history of his city; the intellectual triumphs of his race had been acquired mainly in poetry, oratory, history, sculpture, architecture, and music, and he hoped for future advance in the same fields. He imagined that there was no prospect of any notable improvement in polity, society, religion, or industry—the directions in which the energies of modern life are tending with increasing force. To us progress is the great fact of life, and we are awe-struck as we observe it come rushing down the course of time, gaining new speed and power, with every additional decennium, until at last it has acquired a magnificent momentum, crushing down the despotisms, superstitions, errors, and other relics of barbarism, with irresistible force.

While the Athenians witnessed no noteworthy change in industry and commerce, except as the result of war, the rise and fall of nationalities and of personal fortunes were more sudden and frequent than in modern times. War being more common than with us, the states being smaller, and the vanquished in battle being often slaughtered or enslaved, a campaign of a few days was often sufficient to build up or to break down a city. The victors used their power with little mercy, and appropriated to themselves all the wealth and trade capable of transfer.

SEC. 270. *Opposition to Science and Liberty.*—The

progress of science has been accompanied by a continuous war with superstition and bigotry; and it has been almost invariably a strictly defensive war. The scientists wanted nothing but the privilege of studying Nature, and telling what they had learned. But they always found that natural phenomena are the effects of causes which operate according to regular laws; whereas, a certain class of thinkers assumed that Divine Power operated directly, without the aid of secondary causes, and frequently, if not always, without regard to uniform principles, and in accordance with an inscrutable caprice; that man not only could not find laws in Nature, but that it was impious to try. These were the opinions of Socrates; and Anaxagoras, who took a different view, and tried to explain astronomical and meteorological phenomena, had a narrow escape with his life from the offended "piety," as they called it, of the liberal Athenians. The other ancient nations were generally far more severe. Dissections of the human body were regarded as especially wicked. In the latter part of the middle era, when the universities arose in Western Europe, he was a bold man who claimed the right to use his reason against the authority of any old author. The philosophers of the highest credit were those who could bring the most quotations from the fathers of the church to sustain their doctrines. The attempt to base an opinion on original argumentation was considered presumptuous, if not irreverent and heretical.

When science began to make rapid strides in the modern era, hostility to its spirit became most bitter. The theory of Copernicus, published in 1543, made no noise among the common people, was not sustained by strong evidence, and gave no serious offense, until

Galileo, with his telescope, proved it and made it popular. Then the Inquisition interfered, seized the astronomer, and compelled him to recant, and kept him a prisoner, though not in close confinement, for the last nine years of his life.

The rise of geology awakened, perhaps, still more animosity, but the fires of persecution had been quenched, and the Inquisition had lost the power of burning contumacious scientists. No resource was left, save denunciation, and all the influence of powerful classes was brought to bear against men who asserted that the world had existed for millions of years, and that it took its shape under the influence of natural laws. Even vaccination and anæsthetics, two of the most beneficent discoveries, were denounced, by a few foolish persons, as devices to defeat the will of the Almighty. The doctrines that animal life is always accompanied by and dependent on chemical action, that the vital forces are correlated with the physical forces of inanimate matter, and that mind is the function of the brain, have been combated on theological grounds. The theories of Laplace and Lamarck, that the formation of the universe and the development of animal life were governed by the law of evolution, provoked bitter hostility, which has not yet ceased.

While true religion must be in harmony with liberty and progress, priests have often made serious mistakes in assuming that their prejudices, or apparent immediate interests, agreed with the permanent welfare of the church ; and they have undertaken contests in which they were defeated, not without some unfavorable reflections upon the organizations which they had unfortunately been selected to represent. In the ancient barbaric nations the priests formed one of the privileged

classes, and, of course, they allied themselves with the nobles and other high castes to preserve their power against the multitude. As a general rule, liberty increased as the pagan priesthood lost its influence. One of the chief features of Hellas and Rome, as compared with Egypt and Hindostan, was the lack of ecclesiastical power. The Catholic Church, on account of drawing its clergy from all classes of people, and of the superior devotion of the poorest, rendered much service in liberating serfs, and yet allied itself generally with kings and nobles. Innocent III. denounced Magna Charta, absolved King John from his oath to observe it, and excommunicated the barons who had exacted it. In the time of the French Revolution, the clergy, as a class, were strenuous advocates of many of the old abuses, and for that reason the republicans treated the church with extreme severity. The priests generally, in France, Spain, and Naples, are now the political adherents of the Bourbon dynasties, which are famous for incapacity and for adherence to despotic traditions. In Great Britain the Episcopal Church has given the weight of its influence against many of the most beneficent political reforms, including Catholic emancipation, the extension of suffrage, the abolition of rotten boroughs, and the disestablishment of the Irish Church. In the cotton districts of the United States most of the clergy of all sects were the advocates and never open enemies of slavery, so long as that institution existed.

SEC. 271. *Main Forces of Culture.*—The names given to the different eras of culture indicate generally the character of the influences which have contributed most to the development of humanity. Industrial art, accompanied and aided by inventive genius, has always been the chief civilizer and benefactor of man-

kind. The arts of working stone, bronze, and iron, and the inventions of movable alphabetic type and the steam-engine, have made the chief epochs in history. Science is now crowding closely upon the heels of Industry, but is rather its handmaid than its rival. Polity, society, morality, religion, literature, and art, are very important to human happiness, but they have, in all ages, followed in the train of mechanism. The orators, preachers, and poets, did not exist as separate classes until the mechanics had provided means for their support.

The superiority of our time over antiquity is due not to the greater purity of our religion, or excellence of our poetry, or wisdom of our philosophers, but mainly to the possession of machinery and improved tools, which have facilitated and saved labor, enabled men to live with more comfort and security, given them leisure, opportunity, and motive, to educate themselves, and thus carried them to higher intellectual and moral conditions, and also secured them against conquest by barbaric foes.

SEC. 272. *Luxury not enervating.*—Many writers tell us that Rome and the other empires of ancient times were overthrown by the influence of luxury ; but this assertion indicates a complete misconception of the main causes of the decline and disappearance of nations. The disastrous checks to national progress have never been caused by the luxury, general happiness, or wealth of the people, but mainly by their poverty and misery. As the number of slaves increased, they were treated with more severity, and, when war came, they gave their direct or indirect assistance to the public enemy. Those fight best who have the most to fight for ; and it has always been observed that the

nobles and those classes who lived in the most luxurious manner walked most composedly into the jaws of death. Political corruption, the exclusion of honorable citizens from offices of profit, influence, and honor; the overthrow of the power of the middle class, and the transfer of dominion to a homeless and reckless mob or soldiery; the employment of alien hirelings instead of the enlistment of land-owners for the defense of the country—all these had a powerful influence to drag down some states which had been prosperous and powerful. But it was far more difficult for a state to maintain itself in ancient times than now. Then wars were far more frequent, and more destructively violent. The soldiers, wounded in battle, were slain on the field by the victors, and the captives were either slaughtered or enslaved; and slavery was the fate of the non-combatants in the vanquished country. Wealth could provide no superior armament, and, instead of furnishing the means of greater military strength, as now, and frightening those seeking a conquest, it attracted attack by offering the more plunder to the victors. In modern times luxury has advanced beyond any thing known in antiquity; and yet, those nations which are the most luxurious are also the most formidable in war.

SEC. 273. *Benefits of Education.*—The governments of Athens, Holland, Scotland, the United States, and Prussia, surpassed all others among the Euraryans in their efforts to educate the people, and each was rewarded by a magnificent success. Of the Attic city, J. H. Newman says truly that she was “the world-wide professor of the humanities and the philosophic missionary of mankind.” Holland was, for a time, the chief bulwark of civil and religious liberty; and, in proportion to her area and population, the richest part

of the world. Scotland established her school in every parish at the beginning of the eighteenth century, just before her government was consolidated with that of England, and she had no opportunity of reaping the benefits of the general intelligence of her people, in the conduct of her administration, for the English were very jealous of the educated Scotchmen, and kept them out of the political offices to which they were fairly entitled. Besides, the country is miserably poor in its natural resources, nearly all of it is north of latitude 55° , unfavorably situated for commerce, and enveloped in fogs. But the schools more than counterbalanced all the disadvantages, and the Scotch, few and poor as they were, became, if not the intellectual leaders of the Steam Age, at least its founders, and the rivals of the French, English, and Germans, with their vastly larger numbers. James Watt, next to John Guttenberg, the greatest modern benefactor of our race; Adam Smith, the founder of political economy; J. B. Neilson, who invented the hot-blast, and reduced the cost of iron fifty per cent.; James Nasmyth, the inventor of the steam-hammer, the inventor of the iron mould-board and the stereotype; David Hume, the first, and William Robertson, the second, in the order of time of the great British historians; Walter Scott, who made an epoch in literature, by showing the capabilities of the prose romance; Henry Brougham, who stands in the front rank of orators and political philosophers, and deserves a considerable share in the credit of establishing the *Edinburgh Review*, the appearance of which made a great epoch in literature; Robert Burns, Thomas Carlyle, James Mackintosh, David Brewster, and a host of other eminent men, were children of Scotland, and probably owed their greatness directly or indirectly to

the order of 1697, requiring the maintenance of a cheap or free school in every parish. Although she had then little more than one million inhabitants, her contributions to civilization have excelled in importance those by any other country, not excepting even England, France, Germany, or America.

The Americans, with their large numbers, and great wealth and intelligence, would, no doubt, have occupied a more prominent place in literature if much of their energy had not been devoted to organize their country politically, and develop its material resources. As it is, Great Britain is entitled to the first place in contemporaneous literature; Germany to the second; France the third; and the United States the fourth; and after them come Scandinavia, Russia, Italy, Spain, and Latin America. If the United States had not made such magnificent advances in industry, mechanism, and commerce, within the last half-century, and we should confine our attention to her books alone, we should be seriously dissatisfied with her achievements. Yet, among her historians she has Bancroft, Prescott, Motley, and Benton; among her orators, Webster, Sumner, and Seward; among her law writers, Story, Wheaton, Halleck, Kent, and Parsons; among her poets, Bryant, Aldrich, Longfellow, Mrs. Akers, Whittier, and Holmes; among her novelists, Mrs. Stowe, Irving, Hawthorne, and Fenimore Cooper; among her statesmen, Franklin, Greeley, and Lincoln; and among her philosophers, Channing, Emerson, and Holmes.

Prussia adopted her system of popular education at the beginning of this century, and has since, by political management and military skill, achieved one of the greatest triumphs on record, having now placed herself

at the head of the greatest empire of Continental Europe. While most of the other states of Germany are decidedly inferior to Prussia in the elementary schools, yet all excel in their universities, to which the magnificent development of German literature, science, and art, is, in great degree, to be attributed. Until 1870, the German nationality occupied a low place relatively; and even now the manufactures, commerce, and wealth of the country are far inferior, relatively, to those of England and the United States.

SEC. 274. *Unexpected Benefits from Science.*—It is worthy of remark that many of the most beneficial discoveries in science came from investigations begun with no conception of their ultimate results, and with no definite expectation of any practical benefit. When Franklin experimented with the kite, and Galvani with the dead frog, they had no idea that they were preparing the way for the production of an electric battery, which would decompose the compounds of metals; Priestley obtained oxygen from the air, as a curious natural phenomenon, but with no thought that he was giving a stimulus to the organization of a new science which would have a revolutionary effect on the useful arts; nor, when Arago converted a piece of iron into a magnet, by running a current of electricity round about it, did he imagine that he had laid the foundation for the instantaneous transmission of thought from one hemisphere to another. The farmer may have supposed that Newton was wasting his time while examining the colored spectrum made by a ray of sunlight falling through a hole in a shutter on a prism in a dark room; and for nearly two hundred years the prism was little better than a plaything in the hands of men of science; and yet, at last, the time came when a

couple of Germans applied it on the spectroscope, and made it an instrument of vast importance in the useful arts. We may say that it is the duty of man to study Nature boldly and faithfully, trusting that, in the end, useful results will not fail to appear.

SEC. 275. *Progress in Morality.*—The lowest condition of morality is that in which tyranny is most cruel, or, in other words, is subjected to the least check by law and public opinion, as in primeval savagism. Wrong provokes retaliation, and cruelty is prolific in breeding its like. Oppression debases human nature, and fits it for every crime. Freedom and education, on the other hand, give self-respect, the companion and guardian of all the virtues. Although there were estimable moral teachers among many barbaric nations of antiquity, yet we find no large body of men governed by generous sentiments, and no large number of admirable characters, until we get beyond the dominion of priestcraft and caste. The slavish Orientals could not compete in general morality with the Greeks, who were distinguished for their high appreciation of the personal dignity of freemen. The tone of society improved with that of polity.

It has been said that all ethical law is included in the maxim that we should do to others as we would have them do to us; but that statement is found in the ancient codes of the Hindoos, Persians, Egyptians, and Chinese, and they believe that it did not forbid caste, slavery, polygamy, and political and ecclesiastical despotism. Such able and strict moralists—that is, strict according to the light of their times—as Socrates, Plato, Aristotle, and Cicero, considered it proper to hold slaves, and many Christian people of modern times have agreed with them. They assumed that slavery is

necessary to the proper organization of society, and that whatever severity may be necessary to keep the slaves as a class in subjection, no matter how cruel it may appear in the individual case, is laudable. They interpret the golden rule to mean that we should treat our slaves as we ought to be treated if we were slaves. In this manner most of the oppressions and cruelties of polygamy, caste, the Inquisition, and other forms of tyranny, can be justified. But we have outgrown that base interpretation. We repudiate the assumption that there is any natural or necessary inequality in political condition. All men are or should be equal in political and in ethical rights.

Material progress brings with it political equality ; and the society of equals, as Mill justly observes, is the only school of the highest morality. Sentiments of justice have gained a place in the law, and have been adopted in public opinion in proportion as men found it was dangerous to be unjust. Never in the history of the world have a class of tyrants abandoned their tyranny because they had learned to love liberty and justice. Despots usually yield up their privileges only upon compulsion, and will fight even to their own injury rather than that the people should gain any thing by assuming their freedom. The wars of the Dutch and French Revolutions, and of the American rebellion, are remarkable examples of the bitter devotion with which tyrants will contend for the preservation of their dear tyranny. Some cases that appear exceptional are not so. The French nobles, on the 4th of August, 1789, moved to abolish feudal privileges, and the priests to abolish tithes, but they were borne along by the revolutionary excitement over which their orders had no control, and from which they hoped for promotion.

The Hungarian and Polish nobles freed their serfs, but for the purpose of securing themselves against Austria and Russia. The czar freed his serfs when their liberation would give strength to his empire, and stop the murder of three or four score nobles every year. Great Britain, France, and Spain, have emancipated the slaves of small colonies, but the wishes of the slaveholders were not consulted. A class always strives to increase its power, and to strengthen the system on which its existence is based, unless influenced by a public opinion so powerful that they would personally be injured by the maintenance of the institution.

Endeavors to subject by force any large number of people to the legal dominion of serfdom, slavery, or absolute monarchy, and the persecution of hated sects, were only a few years ago (and would, perhaps, yet be) regarded with favor by many educated and conscientious men in the most enlightened nations; but the number is rapidly decreasing, and the general sentiment now provoked by such an effort would be detestation. The opinion that personal freedom, the political equality of educated citizens, and education, are sacred and inalienable rights, has gained much ground within the last ten years. Human rights are always the same, and some writers have said that morality makes no progress, but the assertion has no justification in history. Morality advances, and must, in the very nature of man, advance with general progress. As men approach perfect political and social equality, the oppression of individuals becomes more difficult and less profitable; public opinion demands the prohibition by law of one form of wrong after another; and, with each change of this kind, the standard of morality rises.

False charges have frequently been made, under the

influence of partisan malice, that this or that class of persons were enemies of morality, and taught that there is no distinction between virtue and vice. No sane men of any note in history have ever seriously taught or attempted to practise such ideas. All recognize a difference between right and wrong, and an obligation to adhere to the former and to reject the latter. Remarks have been made about the difficulty of deciding, in certain cases, where the line of duty lies, about the untrustworthy character of many of the creeds set up as guides in ethics, and about the lack of any standard of justice recognized equally by all men ; but these remarks implied no repudiation of virtue.

SEC. 276. *Crimes of Government*.—Gibbon expresses a common idea by saying that “civil governments, in their first institution, are voluntary associations for mutual defense” against foreign enemies and domestic criminals. Now, although governments are indispensable, yet they are frightful oppressors. For all the greatest evils that have afflicted humanity since the barbaric era began, they are mainly responsible, including war, slavery, caste, religious persecution, and political tyranny. The crime committed by individuals is a small item when compared with the wrong done by governments. In France not more than one hundred persons have been murdered annually on an average in the last hundred years, while the number slain directly and indirectly by war has been not less than fifty thousand, or five hundred fold more. In the losses by theft and the burdens of taxation, we find a still greater disproportion ; for every dollar obtained by the criminals, the tax-gatherers take about two thousand dollars, and nearly half of the latter sum goes to pay the interest on the debt incurred for wars to slaughter

human beings. And the farther we go back the greater the wrongs done by government, and the less, relatively, the crimes of individuals, and the latter were usually provoked by the former.

Oppression does not cease with the overthrow of absolute monarchy, hereditary nobility, personal slavery, and ecclesiastical intolerance. While they have been tumbling down under the assaults of progress, new forms of financial oppression have been growing up. The tyrant whom we now fear is not a master driving us with a whip to till his field every day from dawn to dark, nor a king holding the legal power to execute us at his unchecked will, but a money-lender or a land-owner, who exacts from us one-third or one-half the proceeds of all our hard earnings for the privilege of using his property.

According to my estimate, the poor of the world pay annually, in interest or profit, to the rich, about \$11,000,000,000, including \$4,000,000,000 on large estates in land; \$2,000,000,000 in the excess of the salaries of high officials above the average income of the people; \$1,200,000,000 on large manufacturing establishments; \$800,000,000 on public debts; \$500,000,000 each on private debts and railroads; and \$1,000,000,000 on large capital invested in the commercial and financial business not included under previous headings. As the producing working-men, who are the ultimate taxpayers, do not exceed 200,000,000, it follows that each must, on an average, pay directly or indirectly fifty-five dollars for the privilege of earning his living. In the United States and Western Europe, where the burden is much heavier than in poorer countries, the average is considerably higher. Proof that some of these figures are approximately correct can easily be obtained, but

precision is neither necessary nor possible. All know that the inequality is great ; and, as our literature contains no accurate information, it is my privilege to offer some statistics, even if made only by guessing.

In addition to the servitude imposed on the many, by the unequal distribution of wealth, is the other servitude, perhaps nearly as galling, imposed by the advantages of education and official position. The higher professional men, numbering perhaps one in two thousand of the adult males, have an average income of thirty dollars per day on account of their skill or office ; the second class of professional men, perhaps one in two hundred, have an income of ten dollars per day ; third-rate professional men and skillful mechanics, perhaps one in forty, get four dollars per day ; and the laborers, who are about ninety-eight in one hundred, get two dollars per day, in the United States. A professional man of the first class can, with the proceeds of one day's work, pay the wages of fifteen laborers for the same period.

There is another class of oppressive servitude : the establishment of factitious vices, and the punishment of citizens for actions not objectionable, but even meritorious, on the grounds of true ethics. Among the acts made criminal by ignorant or unwise rulers, at various times and in various countries, have been matrimony with a person of alien blood, a different caste, or a different color ; eating the flesh of an impure or a sacred animal ; explaining the formation of rain, or the movements of our planetary system ; helping slaves to escape ; teaching slaves to read ; declaring that slavery is wrong ; using the word " freedom," and participating in Catholic or Protestant worship. These are but a few of the factitious offenses against morality, for which

millions have been directly punished, and thousands of millions have been excluded from the pleasures which they were fitted to enjoy, and to which they had a sacred moral right.

SEC. 277. *Unity of Culture*.—We have no proof that, after any one nation had made an important step in culture, any other took the same step independently. It is possible that Egypt, China, Mexico, and Peru, each learned to make and cast bronze without any hint or instruction from abroad; but it is more probable that, after the first knowledge of metallurgy had been acquired in one country, it was communicated to others. All the important mechanical inventions, the history of which is distinctly known to us, have been made only once; for, although many contemporaneous experiments may have been in progress, yet, when a machine has once been completed and brought into extensive use, no other like it has been invented elsewhere.

Among the customs of savages, and the laws and religions of barbarians, we find many resemblances suggesting that, in many instances, they may have come from a common source. The Papuans, Australians, North American Indians, Fuegians, and Samoiedes, considered it improper to mention the names of dead persons; and the Australians, Tasmanians, and Abipones of South America, abandoned common words similar in sound to the names of the dead, substituting others. The common people were forbidden to pronounce the great name of God among the Jews, Brahmans, ancient Romans, or Mohammedans; the name of the king in Siam, Burmah, and parts of Hindostan; and the name of the chief in Polynesia. After the accession of a high chief among the Tahitians and Maoris, common words similar in sound to his name were

abandoned. A woman must not speak the name of her father-in-law among the Dyaks, Omahas, Dakotas, and Australians ; of her husband among the Brahmans, the Barea and the Beni Amer of Africa ; or of the male relatives of her husband among the Kaffres.

The idea that a person could be injured or killed by making his image in wax, naming it, and melting or burning it, and practices based on the idea, prevailed, or still prevail, in Peru, Borneo, Hindostan, Burmah, Germany, Siam, and Siberia. A superstition that one person, by getting possession of parings of another's nails, some of his hair, his spittle, the parings of fruit which he had eaten, a bone from which he had eaten the meat, or other of his rubbish, and burning, beating, or treading on it, could bewitch him, throw him into disease, or kill him, is found in Germany, Italy, Polynesia, Australia, North and South America, Hindostan, and Africa.

A singular custom, called the "corwade," requiring the father of a newly-born child to go to bed, keep in the house, and restrict his diet or labors for several weeks after its birth, prevails or has prevailed among the Caribs, Arrawaks, Abipones, Africans, Miautze (in China), Greenlanders, Kamtchatkans, aboriginal Californians, Corsicans, Southern Hindoos, and Spaniards and French near the Pyrenees.

These and other customs, not traceable to any fundamental principle in human nature, or to any necessary feature of human society, give us reason to suppose that even in the remotest times there must have been extensive communication among mankind ; and that, although culture advanced with unequal pace in different countries, yet it preserved a general unity, which has become stronger and more apparent as time progressed.

SEC. 278. *Geographical Course of Culture.*—The first barbaric nations to acquire much population, power, or permanence, were the Egyptians, Assyrians, Babylonians, Hindoos, and Chinese, who had their capitals and made the most of their early progress in the valleys of great rivers, probably because the wide extent of fertile land there offered an opportunity for the support of a dense population, and, by competition and trade, led to improvement. These nations were not maritime; they discouraged foreign trade, and hated foreigners; but when the glories of barbarism were eclipsed by the rise of Euraryan civilization, the great valleys ceased to be the chief centres of culture, and the coasts succeeded them. The chief cities, instead of being inland towns, were built on or near the sea-shore, like Tyre, Carthage, Athens, Syracuse, Alexandria, and Rome. The predominance of the seaports continues to our time.

There is evidently a northward course in culture. Thebes in 25° and Benares in 26° were the first centres of well-organized barbaric governments, and after them we come to Babylon in 32°, Nineveh in 36°, Athens in 37°, Rome in 41°, Paris in 48°, London in 52°, and Berlin in 54°, as the centres of the most powerful nations. This current has been so steady and has continued so long that it cannot be chargeable to accident alone. The climate, north of latitude 40°, may have changed in Europe, by becoming milder in the winter than it was. We scarcely know how to explain the fact that the Teutons and Slavonians, occupying a fertile region, should have remained for ages in savagism, or a low barbaric state, while the Asiatic Aryans and Semites, races decidedly inferior, physically and intellectually, should have advanced so much more

rapidly in culture, and held their superiority for many ages.

It was not until man reached the threshold of the modern era that he learned how to protect himself against the northern winters. Chimneys and iron stoves were entirely unknown, and window-glass and mineral coal were unknown to the people generally in antiquity, and these have been of immense service in making life pleasant and business profitable in those parts of Europe north of 45°. Candles, kerosene, and gas, are also modern improvements, and they have greatly extended the period of labor and enjoyment in the winter months, when the days are short, in the northern latitudes. While the useful arts were in the savage or barbaric stage, the Teutons and Slavonians, in the valleys of the Rhine and the Vistula, not only spent a large part of their year in idleness, but consumed while idle the accumulations of their summer's labor; while in warm climes there was a steady industry and increase in wealth.

We have no reason to suppose that high culture began anywhere more than 30° from the equator. The Japanese admit that their development was later than that of China, and the first centres of Chinese activity were in the southern or middle districts of the country. The Egyptians had a tradition that their arts had come from Ethiopia to the northward. In America, we observe that the Aztecs had their capital in 19°, and the Quichuas theirs in 13°, so that the centres of both the barbaric empires of the New World were within the tropics, but at a considerable elevation above the sea.

Not only have the chief centres of culture moved from the torrid zone or its vicinity to the middle of the

temperate zone, but the tropical peoples have shown a vast inferiority in nearly all respects. In nearly every contest between the north and south, in the Northern Hemisphere, the south has been overwhelmed: the Spanish Chushans expelled the Moors, the Teutons overran the Roman Empire, the French conquered the Italians, the Germans conquered the French, the Dutch defeated the Spaniards, the Americans conquered Mexico, the North suppressed the Confederate rebellion in the United States, and the centres of the two greatest military powers are now Berlin in 54° and St. Petersburg in 60° , the only great capitals north of 53° .

The sub-tropical nations of the present day are mostly failures. Spain has been engaged in almost constant revolution for forty years. The government of Italy is nearly bankrupt. Turkey, Persia, Mexico, Peru, Central America, and Colombia, have no such firm public order and steady industry as we find in Sweden, Holland, Belgium, and Norway, countries far less advantageously situated in most respects. Why is it that Hindostan, with all the help of British rule, advances so slowly, and Siam and Burmah not at all; while Japan, farther north, rushes with an astounding momentum along the track of progress? We have reason to believe that the vegetation of the sub-tropical regions of Europe and Asia has not changed within the last forty-five hundred years, and, if not, then the climate has not become more enervating. Perhaps the disorderly political and unfortunate industrial condition of most of the sub-tropical nations is due mainly to the pernicious influence exercised over them by the stronger nations of the temperate zone, who, by means of superior industry, weaken and impoverish them.

SEC. 279. *Euraryan Predominance.*—In the latter

part of the barbaric era most of the powerful nations were Asiatic, and Asia was the field in which most of the important events of early culture happened. In ancient civilization the scene shifted to Southeastern Europe, and the Pelasgians held the lead for a thousand years; then came the Teutons, who have been in the ascendant for about fifteen hundred years, with every probability of maintaining their predominance for another thousand years at least. The Latin blood no longer exists pure, and is probably mixed with at least an equal share of the Teutonic in the so-called Latin nations; and the Slavonic race, while rising in importance, is yet not gaining so rapidly as the Teutons, and is far inferior in wealth and intelligence. The dominion of the Pelasgians was more extensive, and their influence stronger, than those of their Asian predecessors, but inferior to those of their Teutonic successors. The Teutons threaten to sweep away the inferior races before them from a large part of the earth. They are now doubling their wealth, and adding fifteen per cent. to their numbers, every decennium, while the yellow and black races are declining or becoming subject to Euraryan influence.

There are, at my estimate (precise knowledge being unobtainable), 1,135,000,000 of inhabitants in the world, including 645,000,000 in Asia, 300,000,000 in Europe, 85,000,000 in America, 70,000,000 in Africa, and 35,000,000 in Australia and other islands south of 30° north latitude. Of the 1,135,000,000, the white race (including Semites, Turanians, and Asiatic Aryans) claims 588,000,000, the yellow race 451,000,000, and the black 96,000,000. The 588,000,000 of the white race are composed of 350,000,000 Euraryans, 250,000,000 Asiatic Aryans, and 38,000,000 Semites and Turanians.

SEC. 280. *National Contributions*.—No attempt has been made in our literature to estimate the relative value of the different national contributions to culture, and much study and consideration must be given to the subject before final justice can be done to it. The following list of inventions and discoveries of great direct practical value to industry or commerce, made since the Crusades, is at least approximately correct :

Italy has given us the mariner's compass, the application of the telescope to astronomy, and the chemico-electric battery.

To Portugal we owe the astrolabe, and the ocean-route to Hindostan.

Spain discovered America, and separated silver from its ores by amalgamation.

The telescope and microscope were invented in Holland.

Printing and the spectroscope are German.

France has contributed artery ligature, the bayonet, chemical analysis, the Jacquard loom, the electro-magnet, photography, and iron armor for war-ships.

The American Union claims credit for the cotton-gin, the carding condenser, the steamboat, the improved axe and axe-helve, the cut-nail, pin, type-casting, reaping and sewing machines, the electric telegraph, anæsthesia, vulcanized rubber, the friction-match, the steam fire-engine, revolving fire-arms, and the street railway.

Great Britain has come down with the chronometer, quadrant, logarithms, the steam-engine, the fly-shuttle, the steam carding, spinning, weaving, and dressing machines, bleaching-powder, the application of mineral coal in smelting iron, the puddling-furnace, rolling-mill, hot-blast, the iron mould-board, the stereotype,

the thrashing-machine, gas illumination, vaccination, the screw-propeller, iron-ship building, and the steam-plough.

This list includes fifty-four inventions and discoveries, with three credits for Italy; two each for Portugal, Spain, Holland, and Germany; seven for France; seventeen for the United States; and twenty-six for Great Britain. The last country lacks only one of having half of the entire number; America has more than all Continental Europe; and the Latins have fourteen, leaving forty for the Teutons, while the other races have contributed nothing.

Among the great scientific theories of modern times, we owe those of gravitation, the composition of light, the undulatory theory of light, the correlation of the physical forces, and the definite proportions of elements in chemical compounds, to England; the relations between the planets and their movements to Germany; Linnæus's botanical system to Sweden; Cuvier's zoological system, Lavoisier's chemical nomenclature, Laplace's theory of the formation of the universe, and Lamarck's theory of the evolution of life, to France. There are eleven in all, and of these France has four, England five, Germany one, and Sweden one. The Copernican theory is here omitted, because he neither originated it (for it was taught by Pythagoras), nor did he prove it; so, if the credit is due anywhere, it should be to Galileo. The Lamarck theory was first advocated in a manner to gain extensive favor in the scientific world by Darwin, an Englishman.

France is entitled to the chief credit for organizing the sciences of chemistry, paleontology, comparative anatomy, and for bringing the literature of ancient Persia within the reach of modern learning; and she

shares with England the honor of founding geology, and developing physiology, pathology, and surgery, and of discovering the wonders of Egyptology. Germany claims to have originated historical criticism, comparative philology, and agricultural chemistry. England was the first to study the ancient languages of Hindostan, and the inscriptions of Nineveh and Babylon, and to give the world permanent and authoritatively established representative government, liberty of the press, trial by jury, *habeas corpus*, and enlightened political economy. The Americans adopted manhood suffrage, federal republicanism on an extensive scale, and political equality. Among the points brought together in this paragraph, containing a mixture of the physical and political sciences, and counting the fractions, we have six credits for France, three for Germany, nine for Great Britain, and three for the United States. Out of twenty-one we find six for the Latins, and fifteen for the Teutons.

SEC. 281. *Strong Government.*—The supposition long prevailed that the strongest and most durable form of government is absolute monarchy, and it may have been true in barbaric times; but, since civilization began, the most prosperous as well as the most steadfast systems of polity have been enjoyed under liberal laws or administrations. Athens, England, Scotland, and the United States, have been distinguished by their splendid intellectual and industrial activity, as well as by their free institutions; Rome, Carthage, Venice, and Holland, some of the most remarkable examples of political or commercial success, all had aristocratic governments, based on principles more liberal than those of most of the nations by whom they were surrounded, and whom they overcame after long and

stubborn contention. Although the governments of France and Germany were despotic in form at times when their literature and science were in glorious activity, yet the administrations were liberal in many respects; thought was free in many departments; life and property were secure; and no barbaric tyranny, or cruel Inquisition, smothered their energies.

Of late years statesmen have learned that, if they want to have a strong government, they must lay its foundations in the hearts of the people. The success of France in her revolutionary wars was gained by the overthrow of feudalism, and the recognition of popular rights. When the King of Prussia sought to induce his subjects to exert themselves to the utmost to overthrow Napoleon, in 1813, he promised them an increase of freedom, a promise that was for a long time basely violated. The Polish and the Hungarian nobles granted freedom to the serfs whose aid they wanted against Russia and Austria. Napoleon III. appealed to manhood suffrage to sustain him on the French throne. In Germany, Austria, Spain, and Italy, the conviction prevails that no government can be safe unless the people have a voice in it. Great Britain granted an extension of the right of suffrage in 1832, to prevent a revolution.

SEC. 282. *Convulsions in Monarchies*.—If we run through the list of English sovereigns since the Norman conquest, we shall find that most of them did not reach the throne by legitimate inheritance, and retain it in peace. *William Rufus*, Henry I., Stephen, *John*, Henry IV., Edward IV., *Richard III.*, and Henry VII., were usurpers, and those whose names are italicized murdered the true heirs. William III., Anne, and George I., were selected by Parliament over others

who had better titles by the laws of descent. Edward II., Richard II., Henry VI., and Edward V., were murdered; Richard III. was killed in battle; Charles I. was executed by rebels; and James II. was deposed. There were eight usurpers, and three of them gained their thrones by murdering the lawful heirs; three others obtained the crown from parliamentary grant, violating the order of succession; six died by violence, and one was deposed. The number of those who sought to be usurpers and died by violence is much greater, including such names as those of Lady Jane Grey and Mary Queen of Scots.

In France the sovereigns did not fare much better. If we commence in the sixteenth century, we find that Francis I. was captured, and obtained his freedom only by the grossest and most deliberate perjury, in breaking his solemn treaty; his successor, Henry II., received a fatal wound in a tournament; Francis II. and Charles IX. died while young, the latter under circumstances that raised suspicions of poison; Henry III. and Henry IV. were assassinated by Catholic fanatics; Louis XIII. and Louis XV. were idle debauchees, who left the government to others; Louis XIV., after a long career of victory, was conquered, humiliated, and saved only by the quarrels of his enemies from seeing his country divided up among them; Louis XVI. was decapitated; Louis XVII. never reached the throne; Danton and Robespierre, successively heads of the first French Republic, were executed, and the republic itself was overthrown by usurpation; Louis XVIII. spent much of his life in exile, and, after reaching the throne, was expelled, though soon reinstated, and he was the only French sovereign who died a natural death in France in the last hundred years; Napoleon I. was dethroned

and imprisoned on a small island in the South Atlantic; Napoleon II. never reached the throne; Napoleon III. obtained it by usurpation, and was driven from it by rebellion; and Charles X. and Louis Philippe were also driven out by rebellion. Since 1770 five monarchs have been dethroned; three republics have been instituted, and one king and two leaders of republican administration have been executed. In the entire list of English and French Kings not one has been eminent for ability, virtue, and peaceful administration.

If we look to more despotic governments than those of England and France, we shall find that violent disturbances of the succession have been still more frequent. Out of eleven czars who mounted the Russian throne, between 1682 and 1835, six were usurpers and three were murdered. Thirteen dynasties have occupied the throne of Persia in the last ten centuries, and only four that of France in the same period; and there have been considerable periods when the average length of the Persian reigns was reduced, by the frequency of depositions and murders, to five years. There were twenty-three successions to the throne of Constantinople between 1451 and 1808, and of these eleven were irregular. It was a common custom of the newly-crowned monarchs in Turkey and Persia for centuries to murder their brothers and nephews, so as to protect themselves and their sons against assassination and rebellion.

SEC. 283. *The Precious Metals*.—The production of the precious metals has had a strong influence on the course and development of culture. In ancient times gold and silver mines were few, their yield comparatively small, and the modes of working crude; but when the silver-lodes of Mexico and Peru were opened

in the sixteenth, and those of Nevada and the gold-placers of Siberia, California, and Australia, in the nineteenth century, improved processes and machinery were devised, and great migrations of people carried the arts and wants of civilization into regions far remote from the centres of refinement and the former main channels of trade. It is calculated that when America was discovered the total annual production of the precious metals in Christendom was not more than \$300,000, and the total stock on hand was only \$200,000,000; in the sixteenth, seventeenth, eighteenth, and first half of the nineteenth and third quarter of the nineteenth century, the average annual products were \$7,000,000, \$17,000,000, \$40,000,000, \$40,000,000, and \$200,000,000, respectively, and the present stock of coin in Christendom is about \$6,000,000,000. We now dig from the earth every year as much gold and silver as all Europe had in 1492, and the stock of coin has increased two hundred and fifty fold in Christendom, while the population has not increased fivefold. But commerce has gained more than our stock of coin, and money is now used far more extensively. Four centuries ago the majority of the people were serfs, and even the free laborers seldom worked for money wages. Farms generally were supposed to produce all the clothing and provisions needed for their occupants. Foreign imports were few, and even domestic trade was small. Many circumstances have altered greatly, so that it is difficult to measure the precise influence of any one change. The effect of the increase of the precious metals has been to cause a rise in the market-price of labor, and of the products of labor; and an ounce of silver is now worth relatively about one-twenty-fifth part as much as it was in 1500. With the in-

crease of yield there has also been a great increase in the amounts consumed in the arts, lost by wear and accident, and sent to Asia, which was called "the Sink of Silver" by Pliny, and still deserves the name. The ancients sent to Hindostan and China for spices, silks, muslins, gems, and dyes, and paid for them in precious metal; and that current has continued to flow ever since, the amount sent to Asia by Europe, between 1854 and 1864, having been about \$50,000,000 annually. The people of Asia, living under insecure governments, and not having trustworthy financial institutions to take charge of their money, have been in the habit of hoarding and hiding it, and in this manner great sums have been lost. But as the circumstances of the Asiatics and the arts of the Euraryans have improved, the demand for manufactured products has changed, and the current of treasure has become weaker; and there is a probability that, within a few years, the Chinese and Hindoos will have the balance of trade against them, and must begin to send money to Europe.

SEC. 284. *Increase of Population.*—The number of the Euraryans has been increasing very rapidly of late. In 1450 it was about 100,000,000; in 1770 it had risen to 170,000,000, a gain of seventy per cent. little in more than three centuries; and in the last hundred years it has more than doubled. The gain has been chiefly among the Teutonic nations, who now number 140,000,000 out of 370,000,000, whereas three centuries ago they were not one-fourth of the whole number. Great Britain has grown from 7,000,000 to 31,000,000, and the Teutonic districts of America from less than 1,000,000 to 40,000,000 within two centuries. The Latin nations have gained about fifty per cent. absolutely in population since 1500, but have lost much

relatively. Steam transportation and steam machinery have done much to enlarge, enrich, and beautify the chief cities. Within a hundred years Paris has multiplied her population fourfold, London fivefold, Berlin and Liverpool sixfold, Philadelphia twenty-fold, and New-York forty-fold; while Chicago, St. Louis, Cincinnati, San Francisco, Melbourne, and Singapore, had their beginning in the Steam Age.

SEC. 285. *Philosophy*.—The history of philosophy is a signal evidence of the folly of mankind. Our national and literary histories devote large spaces to the philosophers, who have endeavored to express the leading intellectual sentiments of their age, and to guide its youth to higher levels, but have usually been only blind leaders of the blind, not unfrequently teaching simple doctrines in language so confused that it is almost impossible for the general reader to discover its meaning. The first philosopher of much note, Socrates, taught that it is impious to investigate Nature, but necessary to investigate morals and polity boldly, carefully examining both sides, taking nothing for granted, and relying with the utmost confidence on our own judgment. Plato followed and amplified Socrates, but theorized more about polity and religion, and got beyond his depth. Aristotle studied Nature, with the inductive spirit which, in modern hands, has developed mechanism and science. The philosophers of the middle era pretended to follow Aristotle to a considerable degree, but they did not fully comprehend or sympathize with his study of Nature, and their main purpose was to urge the importance and right of thinking, both of which were denied by powerful ascetic and ecclesiastical influences. After the inventions of the pivoted magnetic needle, movable alphabetic type, and the

astrolabe, the discovery of America and of the ocean-route to Hindostan, and the rise of a great trade with Asia and America, the study of Nature became more important than ever before; and Francis Bacon wrote a work, that made a sensation among scholars, to show that the true method to advance in science is to examine the facts and use them as a basis for theory, and not to form theories without knowledge. This was the inductive method now universally accepted, and called by many writers the Baconian system, but credited to him without reason, for it had been taught and practised by Aristotle, Leonardo da Vinci, and others, before Bacon, who, however, wrote about it more fully and more eloquently, but with no clearer understanding of its main merits. Contemporary with Bacon was Descartes, who died in 1650, and understood the value of induction equally well. Locke, half a century later, undertook to trace our knowledge to its sources, and found them in the senses. This conclusion was regarded as tending to materialism; and the German and Scotch metaphysicians of the eighteenth century sought to prove that consciousness and intuition are higher than sensation, but a large part of their teaching has now lost most of its interest. Their ignorance of science, which has since been developed, and their assumption of principles which were not proved, made their standpoint differ from ours.

The main principles of the philosophy of the present day are, that law prevails throughout all Nature, and has prevailed through all time; that Reason is the absolute and ultimate arbiter in all philosophical questions; that no conclusion must be adopted without a careful examination of all sides, and an impartial consideration of all facts and theories; and that

a knowledge of scientific and philosophic truth **must** be beneficial to the people.

SEC. 286. *Valuable Genius*.—The general judgment of the Pelasgians and Teutons in matters of art has at all times been sound, the verdicts of remote ages upon works of their time being still sanctioned in our day. Thus we see that Homer is admired by all eminent modern critics learned in the Greek language, and Virgil and Horace by all familiar with Latin. In oratory, Demosthenes and Cicero are as much esteemed as they were in antiquity. The same remarks apply to the architects and sculptors of Hellas. The Chinese, Hindoos, Egyptians, and Assyrians, never attained the same delicate taste in art or correct judgment in philosophy. But, while the present age accepts the ancient Euraryan estimates of artistic values in general, it is beginning to repudiate many of the long-accepted valuations of philosophy and genius. Poetry has been regarded as the highest department of human employment; and the most successful poets have been reputed to be the greatest of all geniuses, and the philosophers and orators have been ranked next to them.

The productions of the ornamental and intellectual arts are adapted to please all men in all ages. The works of the mechanics and laborers, and the systems of ancient statesmen, were made for temporary or local use; but the poets, orators, historians, sculptors, and architects, wrought for all time, and found materials susceptible of careful polish and long preservation. The poems of Homer, the orations of Demosthenes, and the history of Thucydides, have been multiplied by myriads of copies, and studied with delight in all the modern Euraryan communities; and it is through them and other works of their class that we know what the

mechanics, the laborers, the warriors, and the statesmen did.

But the supposition that artistic polish implies the highest order of mind is disproved by extensive experience. We find that many consummate artists have a lamentable lack of sound judgment; they have no proper appreciation of the actual conditions of life, and they live in continual conflict with society, defying its rules, and bringing misery and disgrace upon themselves and their friends. Eminence in oratory, as in poetry, has often been gained, not by originality, depth and clearness of thought, but by facility, grace, and readiness of expression, by fullness of illustration, and by skill in appropriating the ideas of others; and repeatedly, when eminent orators have been required to take charge of the practical business of statesmanship or legislation, they have proved far inferior to men who had no skill in charming the multitude with their tongues. There is a general presumption that a man of much practical ability will possess the power of becoming an impressive public speaker and a good artist, but the rule is far from universal, and the exceptions are more numerous to the rule than men eminent in art alone might be developed into highly-successful business-men.

The highest order of genius is not that required to charm the people with skill in the ornamental arts, but to bless them with inventions, discoveries, improved political and social institutions, and great philosophical ideas. Scotland has taken, perhaps, more pride in Burns than in any other of her children, but his dissipated character unfitted him for any higher position than that of gauger, which he filled. One man like James Watt has more valuable genius, and does more

good to humanity and more credit to his country, than a score of Burnses, though his name and labors may be far less familiar to the people in the learned as well as in the ignorant classes.

Here I must quote the opinion of Buckle. He says: "As soon as any department of knowledge has been generalized into laws, it contains, either in itself or its applications, three distinct branches, namely, inventions, discoveries, and method. Of these the first corresponds to art, the second to science, and the third to philosophy. In this scale, inventions have by far the lowest place, and minds of the highest order are rarely occupied by them. Next in the series come discoveries, and here the province of intellect really begins, since here the first attempt is made to search after truth on its own account, and to discard those practical considerations to which inventions are of necessity referred. This is science, properly so called, and how difficult it is to reach this stage is evident from the fact that all half-civilized nations have made many great inventions, but no great discoveries. The highest, however, of all the three stages is the philosophy of method, which bears the same relation to science that science bears to art. Of its immense and, indeed, supreme importance, the annals of knowledge supply abundant evidence."

I imagine that I have sufficiently proved the error of the ideas thus expressed. The mechanical inventions are not only the foundation, but a large part, of the superstructure of civilization, and they have demanded and received the attention and devotion of many of the greatest geniuses who have appeared among men. "Practical considerations" are the chief business of life, and they bear the same relation to

“the philosophy of method” that art does to criticism, and that work does to talk. Scientific discovery is closely akin to mechanical invention, and both are infinitely beyond the rhetorical compositions of Plato and Bacon in their benefit to mankind.

SEC. 287. *Leading Languages*.—If any language is ever to become the universal or the general medium of communication between all the enlightened people of the earth, it will be English, if we may judge from the circumstances of the present. When we look back, we find that no tongue has ever had such advantages as the English has now. Alexander boasted that he had conquered all of the world worth conquering, and Greek was for a time the foremost of languages; but, as a popular speech, it was confined to the shores of the Eastern Mediterranean. Soon after the overthrow of the Macedonian Empire, Rome became the mistress of the world, and Latin was spoken from the Atlantic to the Euphrates, but the Teutonic invasions corrupted it into the Romanic dialects, though it was still preserved as the language of the priests and scholars. For several centuries after the death of Mohammed, the Arabic claimed the first place among languages, on account of its vast area (extending from the Indus to the Atlantic), of the power of the Moslem princes, and of the learning of the Moslem schools; but the possibility that it could ever reach universality ceased long ago.

When Spain had discovered America, had planted her colonies from the Rio Grande to the Strait of Magellan, had opened the silver-mines of Mexico and Peru, had acquired Flanders with the richest manufacturing and commercial cities of Europe, had annexed Portugal with its extensive colonies in Brazil and Asia, and thus had acquired exclusive control of the East Indian trade,

of all the coasts of Asia, Africa, and America, and of all the interior of the New World then considered valuable, it seemed probable that the Spanish tongue must become universal if any ever could; but this probability disappeared after half a century of bigotry, despotism, and disaster.

Then came the French, which was the tongue of the most numerous, the most powerful, the most polite, and the most intellectual people of Europe. Spain, Italy, England, Holland, and Germany, are clustered around France; all were far inferior to her two hundred years ago in some important particulars; all admitted her superiority as a school of manners, and they wisely adopted her tongue as a common medium of communication. Its hold thus obtained on Germany, England, Russia, Turkey, Egypt, and Italy, is still powerful.

But no language ever had such a hold in former times on the wealth, the population, the commerce, the intelligence, and the industrial and military power of the world as the English has now. It is spoken over a greater extent of country, and by a greater number of highly-civilized men, than any other. The only tongues which can come into competition with it are the German, spoken by 55,000,000; the French, spoken by 40,000,000; and the Slavonian, spoken by 80,000,000. The first two are rivals of the English in literature and science, but they are the tongues of nations which have no hope of territorial expansion. The French stock is stationary in numbers; the increase of the Germans runs over into the English countries. The narrowness of their political domain, and their exclusion from maritime commerce, shut out French and German from the hope of universality. The Slavonian language is divided into numerous dialects; its people have no

great literature or commerce, and the nationality, though it promises to attain vast importance in the future, is yet far from having reached a solid unity in enlightened popular opinion. The Arabic (known to 80,000,000), the Chinese (to 250,000,000 or more), and the Japanese (to 35,000,000), are moribund tongues.

English is the speech of 80,000,000 people, equally divided between the two leading nations of the world, Great Britain and the United States. Although each may be inferior in some respects to Germany, France, Russia, and China, yet, when considered in reference to all the elements that go to make up national greatness, they stand above all others, and they are bound together by such identity of language, institutions, literature, historical traditions, commercial interests, and intimate sympathies of friendship and relationship, as never united two other countries. Together they rule over an area of 11,000,000 square miles, and over 320,000,000 people. They have all North America north of Mexico, Australia, New Zealand, Tasmania, a large part of South Africa, nearly all Hindostan, Pegu, Gibraltar, Malta, Ceylon, Singapore, Hong-Kong, Penang, Aden, Jamaica, and a multitude of other possessions.

While the Germans and French are stationary in population, the English nations are growing rapidly, and adding probably 2,000,000 annually to their number. They have room for at least a hundred years of growth at that rate, and they bid fair, before the middle of the twentieth century, to far outnumber the people of any other tongue. They have nine-tenths of the maritime commerce of the world, and they and their ships have made English the common medium of communication in all the great seaports. It is evident that

Commerce is destined to universal dominion, and that she will carry the English language with her. The British and American steamship lines form a net-work in which all the coasts of the world have been inextricably entangled.

The English tongue has also the richest of all literatures, and offers the greatest rewards to authors, and, under such changes as may be effected by international copyright and the adoption of the phonetic alphabet, would attract a large part of the literary ability of all the minor nations. Even under the present circumstances many distinguished men of Continental Europe prefer to publish their books in England. Authors will go to that country which pays them best; and, whenever the able and ambitious young scholars of France and Germany look to the British Isles and the United States as the best field for gaining honor and profit by literary labor, then the final victory of the English language will not be far distant. It is probable that the weaker tongues, such as those of Holland and Scandinavia, will soon begin to give way to the English, which has also an excellent prospect for superseding the Japanese.

The simplicity of its grammatical structure, the directness, vigor, and brevity of many of its expressions, the paucity of its inflections, the monosyllabic form of most of its common words, and its intermediate character between the French and the German, which are its chief rivals, will greatly aid the English in its contest with them. It has been observed that wherever children, equally familiar with the English and another or several other languages, meet on equal terms, they adopt the English as the most convenient medium of communication. The English newspapers are a power-

ful influence in extending the language. We find them in the leading Spanish, American, Asiatic, and Polynesian seaports, including Yokohama, Shanghai, Bangkok, Panama, Valparaiso, Buenos Ayres, Rio Janeiro, and Honolulu.

SEC. 288. *The Five Ages.*—We have found that the history of culture consists of five main divisions. The Savage or Stone Age lasted at least ninety thousand years, and gave to humanity speech, the use of fire, and the arts of making edge-tools of stone and bone; bows, arrows, spears, slings, nets, and rude huts; domesticating a few animals, cultivating a few plants, and, at last, making and casting bronze.

The Bronze or Barbaric Age lasted, perhaps, eight thousand years, and gave us despotic social, political, military, and ecclesiastical organizations, dense population, extensive cultivation, close and durable dwellings of stone and brick, public records, coastwise ocean navigation, a continuous accumulation of property and learning, a division of labor, the alphabet, and iron.

The Iron Age lasted two thousand years, and contributed to culture a refined taste and high genius in literature; plastic, pictorial, and architectural art; political, social, military, and ecclesiastical organizations, superior to those of barbarism; Christianity; the first thorough system of civil and criminal law; the mariner's compass; the astrolabe; bold ocean navigation; gunpowder, chimneys, window-glass, and movable type.

The Printing Age lasted three hundred and twenty years, and enriched mankind by bringing Asia and America under Euraryan influence; making maritime commerce a source of great national wealth; changing the art of war so that the highest civilization and the

greatest wealth must be victorious; educating the people; breaking the bonds of royal, aristocratic, and ecclesiastical influence; extending the knowledge of the mechanic arts, making labor honorable; discovering numerous facts of astronomy, physiology, anatomy, and other sciences, and inventing the steam-engine.

The Steam Age has lasted one hundred years, and has not yet come to an end, but will probably be superseded within twenty-five years by the Peace Age. So far the Steam Age has been rendered illustrious by the invention of cotton, iron, and agricultural machinery; steam-locomotion on land and water; the electric telegraph; the daily press; nearly all our chemistry and geology, a large part of our physiology, hygiene, surgery, and therapeutics; the duplication of Euraryan population; the fivefold increase of the leading Euraryan cities; the establishment of republican or constitutional governments in nearly all the Euraryan nations; the great extension of commercial intercourse; an accumulation of wealth tenfold more rapid than in the previous age; the great decline of the military influence; the disappearance of national animosities; the decrease of the power of the few over the many; and the general longing for a new age in which slaughter and devastation shall no longer check the development of culture and the accumulation of wealth, and in which all the leading nations shall at last join hands in brotherly love to march forward in the glorious career of Peace, Liberty, and Progress.

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